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EVALUATION OF THE IMPACT OF THE ELEMENTARY AND SECONDARY EDUCATION ACT, TITLE I IN THE CINCINNATI PUBLIC SCHOOLS AFTER ONE YEAR AND A HALF.

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THIS REPORT ASSESSES THE GENERAL EFFECTIVENESS OF SIX SEPARATE COMPENSATORY EDUCATION PROJECTS WHICH PROVIDED EITHER (1) EARLY CHILDHOOD EDUCATION, (2) PHYSICAL HEALTH SERVICES, (3) EMOTIONAL, LEARNING, AND COMMUNICATION PROBLEMS, (4) STAFF DEVELOPMENT, LEADERSHIP AND INSERVICE TRAINING, (5) ELEMENTARY SCHOOL REMEDIATION AND ENRICHMENT, OR (6) SECONDARY SCHOOL REMEDIATION AND ENRICHMENT. DATA WERE GATHERED FROM SURVEYS OF TEACHERS, STUDENTS, AND PARENTS, AND FROM ACADEMIC ACHIEVEMENT DATA. PUPIL SELF-IMAGE, ATTENDANCE, PROMOTION RATES, DROPOUTS, PSYCHOLOGICAL REFERRALS, AND VANDALISM WERE STUDIED. TABLES AND GRAPHS SUMMARIZE PROJECT DATA. THIS ARTICLE IS PUBLISHED IN THE "JOURNAL OF INSTRUCTIONAL RESEARCH AND PROGRAM DEVELOPMENT," VOLUME 3, NUMBER 1, SEPTEMBER 1967. (LB)

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EVALUATION OF THE IMPACT OF THE ELEMENTARY AND SECONDARY EDUCATION ACT, TITLE I IN THE CINCINNATI PUBLIC SCHOOLS AFTER ONE YEAR AND A HALF

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TO LEARN ABOUT CHILDREN, THAT CHILDREN MAY LEARN

PREFACE

This issue of the JOURNAL is a counterpart issue to Volume 2, Number 1 published in October 1966. Which are devoted to an evaluation of the impact of the Elementary and Secondary Education Act on the Cincinnati Public Schools. This issue assesses the impact after one and one-half years of ESEA services while the former assessed only the first half year of operation. With few modifications the program was the same for both years.

While this report concerns Cincinnati's program, it should be viewed as one effort, along with thousands of others across the country, at attempting to assess the impact of ESEA, Title I on disadvantaged children. Nationally, we are working toward breaking the poverty cycle. Title I of ESEA is a major thrust in attacking this problem through its educational facet. All the evidence and knowledge must be taken together and seen as a total picture rather than viewed on an individual school district basis. To this end, this issue is being distributed nationally and it is hoped that results from other school districts will be shared with Cincinnati. We encourage constructive criticism and dialogue with other evaluators who are working on this problem.

In preparing this report, the authors have worked under great time pressure. We felt the significant findings must be made available to the staff by the beginning of the 1967-68 school year in order to be of value. Yet, the two summer months available to do this job have been insufficient to prepare a comprehensive report on all details. We have foregone the reporting of most of the statistical analyses but for the average reader this is no great loss.

The evaluation of the Education Act is the responsibility of the Division of Program Development, James N. Jacobs, Director and Joseph L. Felix, Associate. They are the authors of this report and consequently any communications regarding its content should be directed to them. The total report represents a team effort from several divisions. Marius P. Garofalo, Director of Educational Opportunity Services, who serves as the administrator of the ESEA program and his staff, have worked diligently in data collection, pupil identification, and in many other ways with the evaluators. The Division of Psychological Services, Charles Miller, Director, gave valuable assistance in the administration and scoring of the self-concept measures. The Division of Evaluation Services, Joan Bollenbacher, Director, was responsible for the distribution and scoring of standardized achievement tests and the various survey measures. Suzanne Hetzel deserves special recognition for the latter effort. Finally, the Division of Data Processing, Edward Ebel, Director and Walter Reece, Educational Coordinator, spent many hours on designing programs for scoring and data analysis.

This report is concerned with the general effects of the Education Act program which consists of six separate projects: Early Childhood Education; Physical Health Services; Emotional, Learning and Communication Problems; Staff Development, Leadership and In-Service Training; Elementary School Remediation and Enrichment; and Secondary School Remediation and Enrichment. Because of the nature of this program evaluation, the Early Childhood Education project probably had little effect on results since these children were mainly first graders in 1966-67. Specific evaluation of all six projects including Early Childhood Education will be reported in the next issue of this JOURNAL.

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CHAPTER 1
INTRODUCTION

Background

This report is an extension of the program evaluation of the Education Act which was initiated in Cincinnati in January, 1966 with the expenditure of approximately three million dollars for thirteen separate projects. While the thirteen projects operated in 1966 have been combined into six projects for 1966-67 and while the funds available were reduced from $3.1 million in 1966 to $2.9 million in 1966-67, the evaluation of the Education Act programs is viewed as a continuous effort. Evaluation reports for the 1966 program are described in detail in the Journal of Instructional Research and Program Development, Volume 2, Numbers 1, 2, and 3. This report continues the evaluation strategies begun last year and introduces an additional strategy. The data for the current year will be compared to the baseline data collected last year in an effort to measure change or growth.

We continue to distinguish between program and project evaluation. This report is concerned exclusively with program evaluation which is defined as the impact of all Education Act services or projects on the target pupils and target schools. Project evaluation, in contrast, deals with outcomes particular to a project or services within a project. Succeeding issues of the Journal will deal with project evaluation.

Project Descriptions

It is appropriate at the outset to give the reader a thumbnail description of the projects and their component services for it is the collective impact of these services toward which this report is directed.

1. ELEMENTARY SCHOOL REMEDIATION AND ENRICHMENT (Budget: $1,746,800)

    a. Remedial instruction
    b. Supportive services from administrative aides, resource teachers and (parent) resident aides
    c. Educational resource centers
    d. After-school enrichment program
    e. Saturday morning enrichment program
    f. Instrumental music instruction
    g. Field trips and other sources of cultural enrichment

h. Parent study-discussion groups
i. Parent leadership training
j. Provision of child care
k. Summer school

2. SECONDARY SCHOOL REMEDIATION AND ENRICHMENT (Budget: $640,400)

a. Remedial instruction
b. Supportive services from administrative aides, resource teachers, and para-professional personnel
c. Welfare services (food, clothing, fees)
d. Attendance services
e. Guidance and counseling services
f. Summer school
g. Service and instruction for parents

3. EMOTIONAL, LEARNING, AND COMMUNICATION PROBLEMS (Budget: $189,800)

a. Self-contained classes for emotionally disturbed and perceptually handicapped children
b. Clinical diagnostic teams
c. Supportive services of social workers and teacher aides
d. Remediation of sub-standard speech patterns of children, teachers, and parents
e. Inservice teacher training
f. Medical examination and treatment
g. Summer camping experience
h. Summer institutional program for neglected and/or delinquent youth

4. PHYSICAL HEALTH SERVICES (Budget: $78,600)

a. Increased nursing and physician service
b. Health examination for all pupils in grades 4, 7, and 10
c. Follow-up medical services for remediable defects

5. EARLY CHILDHOOD EDUCATION (Budget: $183,200)

a. Psychiatric examination and treatment
b. Increased psychological and pupil adjustment services headed by psychiatric social worker
c. Parent education
d. Employment of kindergarten aides
e. Establishment of a committee to study and evaluate programs for four and five year olds
f. Curriculum materials for articulation of programs for four and five year olds

6. STAFF DEVELOPMENT, LEADERSHIP, AND INSERVICE TRAINING (Budget: $46,300)

a. Dissemination of information to ESEA staff
    - Professional library collection
    - Catalog of resources
    - Target newsletter
    - Clearinghouse

b. Inservice training
  - Guided visitations
  - University based library training
  - School staff meetings
  - Para-professional workshops

c. Coordination of ESEA program components with other agencies

d. Community relations

Program Evaluation Strategies

The evaluation described in this report is product evaluation. That is, it attempts to describe student, teacher, and school characteristics as they exist at the end of the program year. The kinds of activities that take place during the school year are described in project narratives which will be reported in later issues of the Journal. Description of the problems and the steps needed to alleviate these problems we term process evaluation. Basically, this report concerns itself with changes in criterion measurements from 1966 to 1967. Since the large majority of criterion data were obtained in late spring, they do not reflect the effects of extensive summer school programs. The latter will be reported under project evaluation. Three kinds of strategies or perspectives may be involved in making these comparisons, all of which aim to assess the total impact of the Education Act program. Before these strategies are outlined, it is important to define four types of schools.

Primary Target Schools (PT). These are thirteen public elementary, four public secondary, and three non-public elementary schools which have the highest concentrations of disadvantaged children in the Cincinnati school district. Further, these are the schools in which the six projects operate with the greatest intensity. It is estimated that 80% of our Education Act resources are directed to this primary target set of schools.

Secondary Target Schools (ST). This set of schools consists of nineteen public elementary, four public secondary, and ten non-public elementary schools. Secondary target schools are those with a smaller concentration of disadvantaged pupils and in which only certain projects operate. The remainder of our resources, approximately 20%, was spent in these schools this past year.

Control Schools (C). These consist of three public elementary schools and two public secondary schools. They contain even fewer disadvantaged children than PT or ST schools, but represent the closest "match" to the target schools with respect to economic deprivation. With this definition in mind, it is apparent the term "control" school takes on a different meaning from the traditional one of the term in experimentation. These schools receive no Education Act services.

Suburban Schools (S). These consist of ten public elementary and two secondary public schools which rank very high in terms of economic advantagement. They are schools which serve predominantly middle class children and, of course, receive no Education Act services. This set of schools was not defined in last year's evaluation. Criterion measurements of these schools were made this year as an outside check on the observations made in the target schools.

The four classifications of Cincinnati schools described above are not all-inclusive. There are still other schools which receive no services which essentially lie between the control and suburban schools with respect to economic and cultural deprivation. The general hypothesis is that criterion measurements will respond to the intensity of treatments given in the Education Act program. Thus, it is expected that primary target schools should show the most desirable status and/or change followed by secondary target schools and control schools.

The basic problem is to assess the impact of the six projects and their component services (program evaluation) upon the target population. Three types of impact may be defined. First, there is an impact upon specific children in target schools who receive "intensive" service from ESEA projects. These pupils are most likely to show performance differences due to ESEA. Second, there is a possible impact on the school as a whole.

This impact has several bases of rationale. The total school may respond to some type of Hawthorne effect due to increased attention; certain projects or components serve all children in a school; e.g., the resource centers, administrative aides, various health services such as nurses or giving innoculations to all children; specialized project staff may influence other teachers in desirable ways. The probability of detecting target school-wide differences is much less than detecting target pupil differences.

The third type of impact, and the one least likely to occur, is the impact on the school system as a whole; i.e., all non-target as well as target schools. Here again, one may conceive of Hawthorne effects. Changes in administrative organization, the self-fulfilling prophecy and staff interaction on a system-wide level could possibly produce desirable change system-wide. Only the first two types of impact are assessed; i.e., changes in target pupils and target schools.

Changes in Target Schools. As indicated, our interest in status and change focuses on the school group as a unit. We want to know whether PT schools as a group reflect more (desirable) change and/or status as compared to ST or C schools. Such comparison involves averages based on all pupils in the schools. This strategy is shown as follows:

PT Schools	ST Schools	C Schools
Elem. N=9028	Elem. N=14,438	Elem. N=1967
Sec. N=4042	Sec. N= 4,466	Sec. N=1981

Compare 1966 and 1967

If ESEA services given have a school-wide effect, this type of comparison should reflect such change with the expectation being PT ST C. This type of comparison is least sensitive to change because the intensity of treatments per child is small.

Changes in Target Pupils. In employing this strategy it is recognized that program services are not administered uniformly among all children in a target school. Specific children within a target school were selected, based on need, to receive more intensive service. The selection was based primarily on poor achievement and was executed in both primary and secondary target schools. For analytic purposes, a matched group was identified in both PT and ST schools as well as the control schools. Five groups were thus identified and are defined as follows:

1. High Service, Primary Target (HSPT). These primary target children are operationally defined as having the service of a remedial or resource teacher for at least 26 hours of individual or small group instruction plus one or more of these ESEA services: Art; Cultural Enrichment; Music; Food Services; Clothing Services; Waiver of Fees for Books, Supplies, and Materials; Health Services; Psychological Services; Other Special Supplementary Services; Attendance Services; Guidance and Counseling; Curriculum Materials Center Services; Tutoring and After-School Study Center Services; and Services and Instructions for Parents.

2. Low Service, Primary Target (LSPT). These primary target school children are matched with HSPT with respect to school, sex, and grade. In grades 2, 4, and 7 they are matched as closely as possible on the most recent available reading achievement tests. None received direct service by remedial or resource teacher nor did they receive any other ESEA service except use of the resource center and parent education.

3. High Service, Secondary Target (HSST). These children were located in secondary target schools, where ESEA provisions were limited to resource center services and parent education. Therefore, "high service" should not be construed to mean the same as it did in primary target schools. These children were members of designated project classes, which were to be given preference in use of the resource center and in the services of the parent aide. Only grades four and six had sufficient project classes to warrant inclusion.

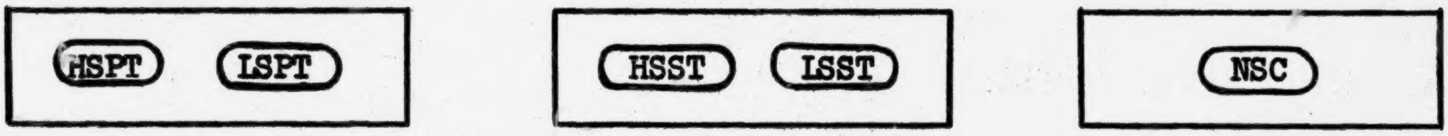
4. Low Service, Secondary Target (LSST). These children in secondary target schools were matched with HSST with respect to school, sex, and grade. Only fourth and sixth grade pupils were included in this group. These pupils were selected from classes other than those designated as project classes. Thus, although the resource centers were available to them, they did not receive the same preferential treatment as indicated for project classes.

5. No Service, Control (NSC). These children were matched with HSPT with respect to grade and sex. There are no tenth grade NSC pupils. This group received no ESEA services.

The above sets of children were identified only in grades two, four, six, seven, and ten. Such a sample was deemed adequate for assessment purposes.

Initially, all children in the above grades who met the definition of the HSPT group were identified and included in the sample providing 1966 achievement data were available (a small percentage of pupils was absent for testing in spite of efforts at "pick-up" testing). The remaining four groups were matched with the HSPT group. This strategy is pictured below:

Primary Target Schools	Secondary Target Schools	Control Schools
13 public elementary 3 private elementary 4 public secondary	19 public elementary 10 private elementary 4 public secondary	3 public elementary 2 public secondary



It is apparent that if criterion measurements respond to treatment intensity as defined, it is expected that change scores will reveal:

1. HSPT>ISPT and
2. HSST>ISST and that
3. the above>NSC

Comparisons 1 and 2 are most unbiased because each involves the same set of schools. Comparisons across PT, ST, and C could contain bias since different schools are involved.

Criterion Measurements

The criterion measurements made for program evaluation are viewed as overall complex variables or barometers of educational health. The measurements are believed to be responsive to program services although this cannot be demonstrated empirically. Since individual chapters of this report are each focused on one criterion measurement, their characteristics will be described fully in that context.

Table 1 simply presents a summary of the criterion measures along with certain pertinent information on each. Information on the reliability and validity of some of these measures is lacking, particularly for the survey instruments. The student, teacher, and parent surveys have been factor analyzed and these results will be reported briefly in their respective chapters.

Data Processing and Analysis

The collection, processing, and analysis of data has been an enormous task. For program evaluation alone approximately 18,000 standardized achievement tests were given as well as 30,000 survey and other types of instruments. The logistics problem of ordering, packaging, distributing, administering, collecting, scoring, and summarizing results has been staggering. Standardized tests, for example, were ordered and packaged by the Division of Evaluation Services, administered by teachers, scored by the Division of Data Processing (by a Digitek machine), and analyzed by the Division of Program Development.

The analysis of raw data takes on two basic forms--analysis of target pupils and target schools. Where possible, change scores are employed in the analysis or other statistical methods; e.g., analysis of variance or covariance techniques, are used to adjust or account for pre-program variation in criteria. Specific analytic techniques will be described in relation to each criterion measure.

Table 1. Summary of Program Evaluation Criterion Measures.

Criterion Measure	School Year	Date Adm.	Grades Involved	Data Available for Pupil Sample	Data Available for School Unit	Reference Groups
Academic Achievement	66	May[(a)]	2 through 11	Yes	Yes	
	67	May[(a)]	2, 4, 5, 6, 7, 10	Yes	Yes	
Student Survey	66	May	4 through 9	No	Yes	PT, ST, C
	67	May	4 through 9	Yes	Yes	PT, ST, C, S
Smiles Survey	66	May	1, 2, 3	No	No	PT, ST, C
	67	May	1, 2, 3	Yes	No	PT, ST, C, S
H-T-P (self-image)	66	Apr.-May	1 through 9	No	No	PT, ST, C
	67	Apr.-May	2, 4, 6, 7, 10	Yes	No	PT, ST, C, S
What I Am Like (self-image)	66	Apr.-May	4 through 9	No	No	PT, ST, C
	67	Apr.-May	4 through 9	Yes	No	PT, ST, C, S
Pupil Marks	66	June	1, 3, 5, 6, 9	Yes	No	PT, ST, C
	67	June	2, 4, 6, 7, 10	Yes	No	PT, ST, C
Pupil Promotion	66	June	K through 12	Yes	Yes	PT, ST, C
	67	June	K through 12	Yes	Yes	PT, ST, C
Pupil Drop-out	66	June	7 through 12	No	Yes	PT, ST, C
	67	June	7 through 12	Yes	Yes	PT, ST, C
Pupil Attendance	66	June	K through 12	Yes	Yes	PT, ST, C
	67	June	K through 12	Yes	Yes	PT, ST, C
Glass Breakage due to Vandalism	66	June	K through 12	No	Yes	PT, ST
	67	June	K through 12	No	Yes	PT, ST
Number and Type of Psychological Referrals	66	June	K through 9	Yes	Yes	PT, ST
	67	June	K through 9	Yes	Yes	PT, ST
Teacher Survey	66	May	All teachers	No	Yes	PT, ST, C, All
	67	May	All teachers	No	Yes	PT, ST, C, All

(Continued)

Table 1. Summary of Program Evaluation Criterion Measures. (Continued)

Criterion Measure	School Year	Date Adm.	Grades Involved	Data Available for Pupil Sample	Data Available for School Unit	Reference Groups
Parent	66	May	-	No	Yes	PT, ST, C
Survey	67	May	-	No	Yes	PT, ST, C, S
School Administrator	66	May	All School Admin.	No	Yes	PT, ST, Other
Survey	67	May	All School Admin.	No	Yes	PT, ST, Other

(a) Fifth grade tests given in February and sixth grade tests given in January.

Finally, it should be pointed out that with the enormous quantities of data generating from this study, it has been necessary to be highly selective in what and how data is reported lest this report become too large to be useful. We have often skimmed over what is frequently reported in great detail in research literature; e.g., our factor analyses, with the idea of making this report as readable and concise as possible.

Organization of this Report

This report is written in two parts, each corresponding to a level of focus, interest, and analysis. Part I attempts to assess the impact of Education Act Title I, on the target schools. In Part I the school or the target area is the universe toward which generalizations are aimed. As stated previously, changes in this universe are unlikely to occur especially over short periods of time. Further, the logical attribution of significant changes to the Title I program are more difficult to make. Part I consists of twelve chapters dealing with teacher, parent, student, and school administrator surveys; pupil achievement, attendance, promotion, drop-out; measures of vandalism and psychological referrals; and a summary and general findings of Part I. In each chapter, the general focus is comparison of status and change in PT, ST, and C schools.

Part II of this report deals with the sample of target pupils described earlier. Changes in target school pupils would seem to stand the higher probability of demonstration than target schools. Yet, it is important to remember that significant change in target pupils will take more time than one year to accomplish.

Parts I and II are followed by chapters designed to summarize the major findings and conclusions.

PART I

ANALYSIS OF SCHOOLS

CHAPTER 2
RESULTS OF TEACHER SURVEY

Description

The teacher survey is an instrument designed to elicit evaluative ratings by teachers of a large number of concepts and services relating to school, its environment, and of course, pupils. The survey administered in June 1966 was identical to that given in June 1967 except for the latter containing two additional items. The surveys were responded to anonymously. Respondents did, however, indicate their school, sex, and the grade level in which they teach.

Each of the fifty items on the 1967 survey was followed by a seven point evaluative scale ranging from 1 (poor) to 7 (good). A rating of 4 represents a neutal rating. In contrast to most other criterion measures, the teacher survey was given in all Cincinnati Public Schools rather than just PT, ST, and C.

Reliability. Some evidence of the reliability of the instrument is available. Test-retest reliability from 1966 to 1967 among item means for PT, ST, and C produced a correlation of .876 at the elementary level and .932 at the secondary level.

Validity. While the instrument has a high degree of face validity, it is more important to establish its relation to "reality." Thus, one may ask whether a teacher rating of pupil self-image is really a true measure of this attribute. There has been insufficient time to study what this survey "really" measures but some attempts have been made. Mean school-wide ratings on certain items have been correlated with "real" statistics reflecting those items. Table 2 represents a summary of these correlations as established on 1966 data.

From these data it appears that teachers, at least on a school-wide basis, make ratings which correspond well with reality. Whether valid ratings are made of more abstract concepts such as pupil self-image is not known.

Table 2. Correlations between Selected Survey Items and Appropriate Objective Data.

Survey Item	Type of Objective Data	Correlation $r_{\cos pi}$*
School Attendance of Pupils	Percent of Attendance	.81
Achievement of Pupils	Sixth Grade Median Stanford Achievement Scores	.88
Achievement of Pupils	Percent of School-Wide Promotion	.70
Parent Participation in School	Percent PTA Membership per ADM	.82
Parent Involvement	Percent PTA Membership per ADM	.82
Supportive Attitude of Parents	Percent PTA Membership per ADM	.87
Size of my Class	Mean Class Size	.47
Pupil Aspiration Level	Percent of Promotion	.70
Motivation of my Pupils	Percent of Promotion	.55
Overall Health Level of Pupils	Percent of Attendance	.76

*Standard errors of these correlations range from .18 to .20.

Factor Analysis. The 1966 survey was factor analyzed using a principal components analysis followed by the varimax procedure. The eight factor constellation was selected as most descriptive. The item clusters represented by the factors are shown in tables 3 and 4. As might be expected, the factor accounting for most of the variance was the morale factor. Item intercorrelations ranged from .05 to .82 with the majority in the .3 to .4 range.

Methods of Analysis

Since one focus of attention is on change in ratings from 1966 to 1967 in PT, ST, and C, an analysis of variance model was used. A three-way analysis of variance was applied: years, 1966 vs. 1967; school group, PT, ST, C; and survey items, the 48 items in common from 1966 to 1967. The item means in this 2 x 3 x 48 or 288 cell table were analyzed. Since it is hypothesized that PT>increase ST>increase C>increase, the expectation is significant school group by year interaction. This analysis was made separately for elementary and secondary level teacher ratings.

Since the above type analysis is gross, a finer look at the results was made by obtaining factor averages by school group and year as well as item averages.

Results

Elementary Level Teachers. Table 3 shows the mean item ratings by year, school group, and factor. It also includes the ratings of the school system as a whole which show practically identical means from 1966 (4.37) to 1967 (4.38). Year differences among PT, ST, and C, however, all show increases: PT, +.20; ST, +.29; and C, +.20. Since the latter are contained in the overall averages, it would appear that in the remaining schools, a slight decrease resulted in 1967. This finding loses some significance in that C school teachers increased their ratings to the same extent as PT and ST teachers.

Summary means by year and school group are as follows:

School Group	1966	1967	Diff.	Group Means
PT	4.25	4.44	+.20	4.35
ST	3.97	4.26	+.29	4.11
C	4.22	4.42	+.20	4.32
Year Average	4.15	4.38	(+.23)	

The analysis of variance showed no significant year by school group interaction, thus failing to support the hypothesis. Year difference was significant (F=30.9, df 1,235) with 1967>1966. School group differences also were significant with PT=C>ST.

The most conspicuous increase in ratings were shown in Factor 6 in PT and ST schools where the increases were 1.56 and 1.85, respectively. These gains reflect the establishment of resource centers in all PT and ST schools

Table 3 . Mean Ratings of ELEMENTARY Teacher Survey by School Group, Year, Factor, and Item.

Group - Factor Items	Primary Target			Secondary Target			Control			All Schools*		
Year - N -	'66 (337) (1)	'67 (391) (2)	'67-'66 (3)	'66 (405) (4)	'67 (611) (5)	'67-'66 (6)	'66 (65) (7)	'67 (60) (8)	'67-'66 (9)	'66 (2699) (10)	'67 (2984) (11)	'67-'66 (12)
Factor 1: MORALE												
- Staff morale.	4.88	4.89	+ .01	4.81	5.06	+ .25	4.97	5.10	+ .13	4.93	4.75	- .18
- Professional cooperation among school staff.	5.24	5.25	+ .01	5.38	5.39	+ .01	5.73	5.43	- .30	5.41	5.29	- .12
- Teacher-Administration co-operation.	5.32	5.50	+ .18	5.30	5.59	+ .29	5.35	5.42	+ .07	5.32	5.46	+ .14
- Teaching in my school.	5.42	5.53	+ .11	5.46	5.50	+ .04	5.88	5.68	- .20	5.59	5.57	- .02
- Pupil-faculty relations.	4.90	5.02	+ .12	4.76	4.95	+ .19	5.20	5.28	+ .08	5.04	4.97	- .07
- School's attempt to reach parents.	5.36	5.30	- .06	5.38	5.33	- .05	5.09	5.60	+ .51	5.44	5.26	- .18
FACTOR AVERAGE	5.19	5.25	+ .06	5.18	5.30	+ .12	5.37	5.42	+ .05	5.29	5.22	- .07
Factor 2: SPECIAL EDUCATION NEEDS												
- Provision for emotionally-disturbed child.	2.51	3.08	+ .57	2.53	2.57	+ .04	1.81	2.83	+1.02	2.73	2.75	+ .02
- Provision for socially-maladjusted child.	2.51	3.07	+ .56	2.47	2.70	+ .23	2.12	2.78	+ .66	2.73	2.84	+ .11
- Provision for physically-handicapped child.	3.29	3.34	+ .05	2.81	3.04	+ .23	2.25	3.20	+ .95	3.43	3.39	- .04
- Present curriculum for the disadvantaged.	4.23	4.51	+ .28	3.48	3.73	+ .25	3.38	3.58	+ .20	3.81	3.84	+ .03
- Provision for pupil welfare needs.	4.97	5.07	+ .10	4.62	4.70	+ .08	4.31	4.17	- .14	4.84	4.71	- .13
FACTOR AVERAGE	3.50	3.81	+ .31	3.18	3.35	+ .17	2.77	3.31	+ .54	3.51	3.51	0
Factor 3: PUPIL-PARENT CHARAC.												
- Pupil aspiration level.	3.50	3.49	- .01	3.12	3.67	+ .55	3.65	4.18	+ .53	3.81	3.94	+ .13
- Parent participation in school.	2.93	2.95	+ .02	2.54	2.84	+ .30	3.02	4.12	+1.10	3.30	3.27	- .03
- Achievement of pupils.	4.00	3.79	- .21	3.72	3.61	- .11	4.12	4.36	+ .24	4.31	4.07	- .24
- Parent involvement.	3.23	3.40	+ .17	2.83	3.38	+ .55	3.17	4.36	+1.19	3.51	3.64	+ .13
- Supportive attitude of parents.	3.71	3.44	- .27	3.28	3.47	+ .19	3.84	3.90	+ .06	[illegible]	3.70	- .27
- The type of pupils I teach.	3.57	3.40	- .17	3.20	3.39	+ .19	3.77	3.92	+ .15	[illegible]	3.99	- .11
- Pupil image of self.	3.43	3.54	+ .11	3.26	3.59	+ .33	4.02	4.38	+ .36	[illegible]	3.99	- .06
- School attendance of pupils.	4.38	4.20	- .18	4.19	4.41	+ .22	4.26	4.43	+ .17	[illegible]	4.27	- .25
- Overall health level of pupils.	3.99	4.07	+ .08	4.03	4.42	+ .39	4.23	4.37	+ .14	[illegible]	4.66	.01
- Motivation of my pupils.	4.45	4.45	0	4.06	4.25	+ .19	4.66	4.70	+ .04	4.45	4.38	- .07
- Behavior standards of my pupils.	4.05	3.76	- .29	3.60	3.70	+ .10	3.98	4.38	+ .40	4.26	3.99	- .27
- Previous academic preparation of my pupils.	3.56	3.56	0	3.52	3.42	- .10	4.25	4.24	- .01	3.96	3.75	- .21
- Pupil acquaintance with total community.	3.87	3.96	+ .09	3.60	3.72	+ .12	4.02	4.08	+ .06	4.06	3.96	- .10
- Degree of tardiness.	4.03	4.07	+ .04	4.07	3.99	- .08	4.28	4.70	+ .42	4.29	4.17	- .12
- Pupil discipline.	3.89	4.00	+ .11	3.68	3.94	+ .26	3.85	4.68	+ .83	4.04	4.09	+ .05
- Provision for pupil's cultural growth.	4.52	4.56	+ .04	3.51	4.13	+ .62	4.30	4.40	+ .10	4.49	4.45	- .04
- Provision to challenge able learner.	4.25	4.41	+ .16	3.98	4.24	+ .26	5.38	4.90	- .48	4.68	4.62	- .06
- Intelligibility of pupil speech.	3.28	3.19	- .09	3.33	3.40	+ .07	4.00	4.07	+ .07	3.27	3.87	+ .60
FACTOR AVERAGE	3.81	3.79	- .02	3.53	3.76	+ .23	4.04	4.34	+ .30	4.09	4.04	- .05
Factor 4: CONDITIONS FOR INST.												
- Teacher time to plan.	3.30	3.25	- .05	2.96	3.26	+ .30	2.97	2.90	- .07	3.46	3.28	- .18
- Size of my class(es).	4.23	5.14	+ .91	3.73	4.46	+ .73	3.73	4.08	+ .35	3.97	4.44	+ .47
- Time to teach.	4.65	4.85	+ .20	4.39	4.59	+ .20	4.89	4.77	- .12	4.76	4.80	+ .04
- Time and place for pupils to study.	3.54	4.30	+ .76	3.19	3.79	+ .60	3.75	3.80	+ .05	3.81	3.82	+ .01
- Provision for academic remediation.	4.40	4.98	+ .58	3.86	3.95	+ .09	3.95	3.93	- .02	3.96	4.05	+ .09
FACTOR AVERAGE	4.02	4.50	+ .48	3.63	4.01	+ .38	3.86	3.90	+ .04	3.99	4.08	+ .09
Factor 5: IMPROVING SCH. PROG.												
- Provision for visiting teacher services.	4.72	4.84	+ .12	4.88	4.74	- .14	4.73	5.17	+ .44	4.81	4.81	0
- Provision for supervisory personnel.	5.01	5.09	+ .08	4.97	5.03	+ .06	5.40	5.08	- .32	5.12	5.02	- .10
- In-service training.	4.89	5.01	+ .12	4.75	4.72	- .03	5.52	5.10	- .42	4.87	4.73	- .14
- Field trip opportunities.	5.82	5.31	- .51	4.08	4.59	+ .51	4.83	4.12	- .71	4.88	4.78	- .10
- School's provision for pupil's health.	4.96	5.20	+ .24	4.91	5.02	+ .11	4.61	4.62	+ .01	5.03	4.96	- .07
- Adequacy of enrichment activities.	4.93	5.26	+ .33	4.04	4.46	+ .42	5.17	4.80	- .37	4.64	4.63	- .01
- Help in handling disciplinary problems.	4.72	5.00	+ .28	4.81	4.93	+ .12	4.28	4.93	+ .65	4.87	4.95	+ .08
- Adequacy of instructional media.	4.98	5.38	+ .40	4.77	4.95	+ .18	5.00	5.18	+ .18	4.85	5.07	+ .22
FACTOR AVERAGE	5.00	5.14	+ .13	4.65	4.81	+ .15	4.94	4.88	- .07	4.88	4.87	- .02
Factor 6: LIBRARY RESOURCES												
- Adequacy of school library.	3.85	5.98	+2.13	3.23	5.69	+2.46	3.72	4.00	+ .28	4.39	5.19	+ .80
- Availability of professional reading matter.	4.80	5.79	+ .99	4.34	5.58	+1.24	4.20	4.52	+ .32	4.89	5.35	+ .46
FACTOR AVERAGE	4.33	5.89	+1.56	3.79	5.64	+1.85	3.96	4.26	+ .30	4.64	5.27	+ .63
Factor 7: BOOKS AND SUPPLIES												
- Adequacy of supplies.	5.33	5.57	+ .24	4.81	5.08	+ .27	5.63	5.58	- .05	5.20	5.28	+ .08
- Books available to my class.	5.01	5.59	+ .58	4.61	5.30	+ .69	4.92	5.35	+ .43	4.87	5.18	+ .31
FACTOR AVERAGE	5.17	5.58	+ .41	4.71	5.19	+ .48	5.28	5.47	+ .19	5.04	5.23	+ .20
Factor 8: SCHOOL PLANT												
- Adequacy of school playground.	3.51	3.75	+ .24	3.38	3.77	+ .39	3.09	3.52	+ .43	4.08	4.20	+ .12
- Adequacy of school building.	4.26	4.69	+ .43	4.02	4.42	+ .40	3.41	3.69	+ .28	4.34	4.51	+ .17
FACTOR AVERAGE	3.89	4.22	+ .34	3.70	4.10	+ .40	3.25	3.61	+ .36	4.21	4.36	+ .15
Factor 9: EDUCATION ACT												
- My assessment of Education Act program.		4.73			4.41			3.86			4.13	
- My understanding of Education Act program.		4.88			4.63			4.08			4.22	
FACTOR AVERAGE		4.81			4.52			3.97			4.18	
AVERAGE FOR 48 COMMON ITEMS	4.25	4.45		3.97	4.26		4.22	4.42		4.37	4.38	
DIFFERENCES 1967 - 1966			+ .20			+ .29			+ .20			+ .01

*This total includes PT, ST, and C, as well as all elementary and secondary schools.

over the past year. Elementary teacher ratings in PT and ST surpass those given in all schools.

Factor 1, morale, continues to be high but unchanged from last year. Little difference in morale among school groups is noted. Target school teachers, for example, rate "teaching in my school" about as high as teachers in general.

Factor 2, special education needs, has items directly related to ESEA services. For 1967, PT>ST>C, although C showed more gain from 1966. The factor 2 means generally are considerably below the neutral point of 4.00 indicating that more needs to be done especially for socially and emotionally maladjusted children.

Factor 3, pupil-parent characteristics, best represents the teachers' evaluations of their pupils. Both PT and ST show lower ratings than C or system-wide ratings. Little change is noted in PT while ST increased to a level equal to PT for 1967.

Factor 4, conditions for instruction, reflects some of the ESEA program emphasis and reveals PT>ST>C both in average rating and change. This finding supports the general hypothesis. Ratings for class size, and time and place for pupils to study showed the greatest improvement and correspond to ESEA efforts.

Factor 5, improving school program, shows little change in any school group from 1966 to 1967. PT ratings are highest in both years certainly reflecting ESEA program thrusts. PT ratings of instructional media and enrichment activities are highest as well as field trip opportunities in spite of the fact that the latter showed a significant decline. Field trips were, in fact, reduced this past year due to less funds available in fiscal 1967.

Factor 7, books and supplies, also shows a significant increase for

PT and ST. Since ratings of all school groups are over the five point level, teachers apparently feel that books and supplies are adequate. PT means are generally higher than ST, C, or system-wide ratings.

Factor 8, school plant, shows equal increases from PT, ST, and C although the averages show a tendency for PT ST C for 1967.

Factor 9, Education Act, shows what might be expected, that primary target school teachers show more understanding and assess the program better than ST or C teachers. These two items were not included in the 1966 survey; therefore, changes cannot be assessed.

Finally, it is interesting to note that in both 1966 and 1967 the highest mean item rating was obtained from the item "teaching in my school" followed by "teacher-administration cooperation," while the two items rated lowest continued to be provision for emotionally and socially maladjusted children.

Secondary Level Teachers. Table 4 summarizes the mean ratings and year differences for secondary level teachers. Inspection of the last row of table 4 shows an overall decrease of .02 in PT schools; an increase of .18 in ST schools, and an increase of .44 in C schools. This finding is in contrast to that at the elementary level which showed increases to be uniform across PT, ST, and C. The means and differences are summarized below by year and school group.

School Group	1966	1967	Diff.	Group Means
PT	4.23	4.21	-.02	4.22
ST	3.89	4.07	+.18	3.98
C	3.84	4.28	+.44	4.06
Year Average	3.99	4.19		

The apparent interaction shown in the differences above was verified through the analysis of variance. Thus, in terms of change alone, C schools changed most followed by ST schools, with PT schools remaining essentially the same as in 1966. In addition, the analysis of variance revealed a significant difference among groups with PT (4.22) ST (3.98)=C (4.06).

Table 6 . Mean Ratings of SECONDARY Teacher Survey by School Group, Year, Factor, and Item.

Group -	Primary Target			Secondary Target			Control			All Schools*		
Factor Items — Year - N =	'66 (215) (1)	'67 (190) (2)	'67-'66 (3)	'66 (198) (4)	'67 (286) (5)	'67-'66 (6)	'66 (63) (7)	'67 (85) (8)	'67-'66 (9)	'66 (2699) (10)	'67 (2984) (11)	'67-'66 (12)
Factor 1: MORALE												
- Staff morale.	5.12	4.94	- .18	4.99	4.23	- .76	4.32	5.44	+1.12	4.93	4.75	- .18
- Professional cooperation among school staff.	5.42	5.26	- .16	5.32	5.17	- .15	5.52	5.65	+ .13	5.41	5.29	- .12
- Teacher-Administration co-operation.	5.55	5.40	- .15	5.25	5.32	+ .07	5.33	6.36	+1.03	5.32	5.46	+ .14
- Teaching in my school.	5.32	5.38	+ .06	5.20	5.15	- .05	4.98	5.44	+ .46	5.59	5.57	- .02
- Pupil-faculty relations.	4.99	4.83	- .16	4.41	4.55	+ .14	4.05	4.62	+ .57	5.04	4.97	- .07
- School's attempt to reach parents.	5.20	4.98	- .22	5.12	4.86	- .26	4.89	5.53	+ .64	5.44	5.26	- .18
FACTOR AVERAGE	5.27	5.13	- .14	5.05	4.88	- .17	4.85	5.51	+ .66	5.29	5.22	- .07
Factor 2: SPECIAL EDUCATION NEEDS												
- Provision for emotionally-disturbed child.	3.08	2.95	- .13	2.28	2.47	+ .19	2.63	2.78	+ .15	2.73	2.75	+ .02
- Provision for socially-maladjusted child.	3.17	3.15	- .02	2.26	2.60	+ .34	2.66	2.73	+ .07	2.73	2.84	+ .11
- Provision for physically-handicapped child.	3.35	3.44	+ .09	2.93	3.83	+ .90	2.93	3.27	+ .34	3.43	3.39	- .04
- Present curriculum for the disadvantaged.	4.44	4.35	- .09	3.30	3.75	+ .45	3.89	4.41	+ .52	3.81	3.84	+ .03
- Provision for pupil welfare needs.	5.33	5.29	- .04	4.65	4.56	- .09	4.63	4.49	- .14	4.84	4.71	- .13
FACTOR AVERAGE	3.87	3.84	- .03	3.08	3.44	+ .36	3.35	3.54	+ .19	3.51	3.51	0
Factor 3: PUPIL-PARENT CHARAC.												
- Pupil aspiration level.	3.15	3.23	+ .08	2.83	3.22	+ .39	2.52	3.18	+ .66	3.81	3.94	+ .13
- Parent participation in school.	2.00	2.06	+ .06	2.20	2.52	+ .32	2.14	2.55	+ .41	3.30	3.27	- .03
- Achievement of pupils.	3.67	3.60	- .07	3.36	3.52	+ .16	3.44	3.64	+ .20	4.31	4.07	- .24
- Parent involvement.	2.51	2.76	+ .25	2.76	3.09	+ .33	2.68	3.13	+ .45	3.51	3.64	+ .13
- Supportive attitude of parents.	2.95	2.97	+ .02	3.13	3.14	+ .01	2.62	2.96	+ .34	3.97	3.70	- .27
- The type of pupils I teach.	3.49	3.38	- .11	3.23	3.82	+ .59	2.98	3.63	+ .65	4.01	3.90	- .11
- Pupil image of self.	3.21	3.11	- .10	2.83	3.34	+ .51	3.40	3.35	- .05	4.05	3.99	- .06
- School attendance of pupils.	3.15	2.97	- .18	3.57	3.32	- .25	3.35	3.14	- .21	4.52	4.27	- .25
- Overall health level of pupils.	4.00	4.05	+ .05	3.93	4.19	+ .26	4.10	4.16	+ .06	4.65	4.66	+ .01
- Motivation of my pupils.	3.85	3.79	- .06	3.21	3.54	+ .33	3.13	3.45	+ .32	4.45	4.38	- .07
- Behavior standards of my pupils.	3.83	3.69	-.14	3.45	3.67	+ .22	2.97	3.42	+ .45	4.26	3.99	- .27
- Previous academic preparation of my pupils.	3.13	2.95	- .18	3.06	3.17	+ .11	3.22	3.48	+ .26	3.96	3.75	- .21
- Pupil acquaintance with total community.	3.76	3.76	0	3.33	3.29	- .04	3.22	3.51	+ .29	4.06	3.96	- .10
- Degree of tardiness.	2.96	2.86	- .10	3.21	3.25	+ .04	3.32	3.84	+ .52	4.29	4.17	- .12
- Pupil discipline.	4.01	3.93	- .08	3.30	3.76	+ .46	2.68	3.69	+1.01	4.04	4.09	+ .05
- Provision for pupil's cultural growth.	4.29	4.19	- .10	3.64	3.88	+ .24	3.83	4.42	+ .59	4.49	4.45	- .04
- Provision to challenge able learner.	4.39	4.21	- .18	4.08	4.60	+ .52	3.97	4.82	+ .85	4.68	4.62	- .06
- Intelligibility of pupil speech.	3.25	2.95	- .30	3.14	3.32	+ .18	3.78	3.90	+ .12	3.27	3.87	+ .60
FACTOR AVERAGE	3.42	3.36	- .06	3.24	3.48	+ .24	3.19	3.57	+ .38	4.09	4.04	- .05
Factor 4: CONDITIONS FOR INST.												
- Teacher time to plan.	4.03	3.98	- .05	3.73	3.72	- .01	3.62	3.74	+ .12	3.46	3.28	- .18
- Size of my class(es).	4.34	4.76	+ .42	3.76	4.74	+ .98	3.55	4.06	+ .51	3.97	4.44	+ .47
- Time to teach.	4.70	4.69	- .01	4.55	4.90	+ .35	4.44	4.83	+ .39	4.76	4.80	+ .04
- Time and place for pupils to study.	3.80	3.93	+ .13	3.44	3.19	- .25	3.79	4.39	+ .60	3.81	3.82	+ .01
- Provision for academic remediation.	4.23	4.39	+ .16	3.58	3.91	+ .33	3.47	3.79	+ .32	3.96	4.05	+ .09
FACTOR AVERAGE	4.22	4.35	+ .13	3.81	4.09	+ .28	3.77	4.16	+ .39	3.99	4.08	+ .09
Factor 5: IMPROVING SCH. PROG.												
- Provision for visiting teacher services.	4.59	5.06	+ .47	4.41	4.58	+ .17	3.92	4.43	+ .51	4.81	4.81	0
- Provision for supervisory personnel.	5.19	5.08	- .11	4.60	5.03	+ .43	4.60	4.75	+ .15	5.12	5.02	- .10
- In-service training.	4.72	4.99	+ .27	4.72	4.32	- .40	4.45	4.71	+ .26	4.87	4.73	- .14
- Field trip opportunities.	5.88	5.23	- .65	4.25	4.19	- .06	4.52	4.77	+ .25	4.88	4.78	- .10
- School's provision for pupil's health.	5.61	5.37	- .24	4.74	4.96	+ .22	4.52	5.01	+ .49	5.03	4.96	- .07
- Adequacy of enrichment activities.	4.72	4.56	- .16	3.76	4.14	+ .18	3.92	4.43	+ .51	4.64	4.63	- .01
- Help in handling disciplinary problems.	5.43	5.42	- .01	4.68	5.16	+ .48	4.63	5.65	+1.02	4.87	4.95	+ .08
- Adequacy of instructional media.	5.08	5.01	- .07	4.61	4.60	- .01	4.52	5.13	+ .61	4.85	5.07	+ .22
FACTOR AVERAGE	5.15	5.09	- .06	4.47	4.62	+ .15	4.39	4.86	+ .47	4.88	4.87	- .01
Factor 6: LIBRARY RESOURCES												
- Adequacy of school library.	4.98	5.07	+ .09	5.53	5.59	+ .06	4.51	5.41	+ .90	4.39	5.19	+ .80
- Availability of professional reading matter.	4.97	5.06	+ .09	5.16	5.00	- .16	4.54	4.98	+ .44	4.89	5.35	+ .46
FACTOR AVERAGE	4.98	5.07	+ .09	5.35	5.30	- .05	4.53	5.20	+ .67	4.64	5.27	+ .63
Factor 7: BOOKS AND SUPPLIES												
- Adequacy of supplies.	5.13	5.31	+ .18	4.82	5.34	+ .52	4.76	5.40	+ .64	5.20	5.28	+ .08
- Books available to my class.	4.74	4.90	+ .16	4.39	4.85	+ .46	4.61	4.95	+ .34	4.87	5.18	+ .31
FACTOR AVERAGE	4.94	5.11	+ .17	4.61	5.10	+ .49	4.69	5.18	+ .49	5.04	5.23	+ .20
Factor 8: SCHOOL PLANT												
- Adequacy of school playground.	3.72	4.02	+ .30	3.69	4.07	+ .38	4.40	4.83	+ .43	4.08	4.20	+ .12
- Adequacy of school building.	4.48	4.83	+ .35	4.51	4.11	- .40	4.43	5.40	+ .97	4.34	4.51	+ .17
FACTOR AVERAGE	4.10	4.43	+ .33	4.10	4.09	- .01	4.42	5.12	+ .70	4.21	4.36	+ .15
Factor 9: EDUCATION ACT												
- My assessment of Education Act program.		4.31			3.82			3.45			4.13	
- My understanding of Education Act program.		4.81			3.78			3.83			4.22	
FACTOR AVERAGE		4.56			3.80			3.64			4.18	
AVERAGE FOR 48 COMMON ITEMS	4.23	4.21		3.89	4.07		3.84	4.28		4.37	4.38	
DIFFERENCES 1967 - 1966	- .02			+ .18			+ .44			+ .01		

*This total includes PT, ST, and C, as well as all elementary and secondary schools.

Finally, a significant difference was noted from 1966 (3.99) to 1967 (4.19). Thus, all three sets of schools apparently increased in their evaluations of the various concepts and services. The small change noted in PT is apparently a function of the high ratings given by these teachers in 1966 compared to ST or C teachers. In 1967 a leveling off phenomenon has occurred which makes all three sets of schools look much more alike in their ratings. It will be noted that secondary teachers in general rated these concepts and services lower than did elementary teachers, this phenomenon appearing in the 1966 analysis also.

Certainly a striking feature of these data is the consistently higher rating increases made by the C school teachers. Why this occurred is not known but one possible answer is that one of the two original control schools ceased operation in grades 7 and 8 and became an elementary school only. A new junior high school was built which accommodated both pupils and some staff from the original control school. Thus, the new junior high was used as the control school in 1967. Perhaps being in a new school has an enhancing effect upon teacher ratings.

Comparison of mean gains between PT and ST shows ST>PT; a reversal of the general hypothesis. This is accounted for, however, in terms of the originally high (1966) PT ratings. Thus, ST schools are simply catching up to the PT ratings. The two sets of schools are not yet the same since the overall PT mean for 1967 is 4.21 compared to 4.07 for the ST schools.

Factor 1, morale, shows an overall decrease except in the two C schools. ST schools show the lowest 1967 mean (4.88) followed by PT (5.13) and C (5.51). Decrease in staff morale, while still high, may have resulted from two defeats of school levies and other adverse situations occurring during the year.

Factor 2, special education needs, shows the lowest teacher ratings. While gains were highest in ST, the means continue to show PT>ST=C. Secondary teachers as well as elementary teachers continue to express their concern over adequate provision for socially and emotionally maladjusted pupils.

Both change and 1967 means in Factor 3, pupil-parent characteristics, show C>ST>PT. This is again a reversal of the general hypothesis. Perhaps the best indication of desirable behavioral change will have occurred when this factor reaches a point where PT averages near the system-wide norm.

Factor 4, conditions for instruction, shows C>ST>PT in terms of change but PT>C>ST in terms of 1967 averages. Class size ratings improved greatly in all school groups and the school system.

Factor 5, improving school program, shows C>ST>PT in terms of change but PT highest in terms of mean score; higher, in fact, than the system-wide average. Field trip opportunities in PT was rated considerably lower than it was among elementary PT teachers reflecting the cutbacks in this area due to limited funds.

Factor 6, library resources, is rated high by all school groups but in PT is relatively low in comparison to ST and C. The high increase (.90) in C is due probably to the opening of the new school.

Factor 7, books and supplies, is rated high in all school groups with little difference among groups.

Factor 8, school plant, shows generally higher ratings except in ST schools where both the means and positive change are lowest. No ESEA funds were spent for playgrounds but during the first year some were spent for remodeling in a few schools.

Factor 9, Education Act, reveals that PT teachers assess and understand the ESEA program better than other teachers. Ratings given by all secondary teachers are higher than those given by ST and C.

Discussion

This chapter has attempted to assess ESEA impact through a teacher evaluation device where fifty items representing various concepts and services were all rated on a "poor" to "good" scale. The surveys were given in May 1966 and May 1967. Attention was focused both on mean 1967 ratings and on rating changes from 1966 to 1967 among PT, ST, and C school teachers as well as all teachers.

Perhaps the best summary of the findings is shown in table 5 which simply records the rank order of factor means and factor mean differences without regard to significance of difference. "All" in table 5 refers to all teachers in the school system; the data being taken from the last three columns of tables 3 and 4.

The 1967 status of elementary teacher ratings shows PT ratings highest in six of the nine factors while ST is highest in five of the nine factors in terms of change. The higher ratings in PT schools reflect factors which measure concrete, visible objects or services. A teacher can literally see a special class in operation, or a resource center or a place to study. More abstract concepts such as aspiration, motivation, self-image, morale, require more subjective judgment and it is in these factors where PT change and status were lowest. Probably the best indication of the success of the ESEA program will be shown by significant increases in the pupil-parent characteristics factor. Certainly elementary teachers in target schools believe their teaching situation, exclusive of pupil-parent characteristics, to be as good or better than the average teacher in the school system.

The general findings at the secondary level are not as favorable to the general hypothesis as they are at the elementary level. PT ratings in 1967 are highest in four of the nine factors while lowest in two. The ratings of "all" teachers ranks first or second in six of the nine factors. Gains were highest among C schools in six of the nine factors while ST showed most gain on the remaining two factors. The high gains in C schools are believed to be caused by the opening of a new (control) school.

Table 5. Rank Order of Means and Changes from 1966 in Factor Ratings for Various School Groups on the Teacher Survey.

Factor	Factor Mean for 1967	Mean Factor Change 1967-1966
	ELEMENTARY TEACHERS	
1. Morale	C > ST > PT >All	ST > PT > C >All
2. Special Education Needs	PT >All > ST > C	C > PT > ST >All
3. Pupil-Parent Characteristics	C >All > PT > ST	C > ST > PT >All
4. Conditions for Instruction	PT >All > ST > C	PT > ST >All > C
5. Improving School Program	PT > C >All > ST	ST > PT >All > C
6. Library Resources	PT > ST >All > C	ST > PT >All > C
7. Books and Supplies	PT > C >All > ST	ST > PT >All > C
8. School Plant	All > PT > ST > C	ST > C > PT >All
9. Education Act	PT > ST >All > C	-- -- -- --
Total All Items	PT > C >All > ST	ST > PT = C >All
	SECONDARY TEACHERS	
1. Morale	C >All > PT > ST	C >All > PT > ST
2. Special Education Needs	PT > C >All > ST	ST > C >All > PT
3. Pupil-Parent Characteristics	All > C > ST > PT	C > ST >All > PT
4. Conditions for Instruction	PT > C > ST >All	C > ST > PT >All
5. Improving School Program	PT >All > C > ST	C > ST >All > PT
6. Library Resources	ST >All > C > PT	C >All > PT > ST
7. Books and Supplies	All > C > PT > ST	ST = C >All > PT
8. School Plant	C > PT >All > ST	C > PT >All > ST
9. Education Act	PT >All > ST > C	-- -- -- --
Total All Items	All > C > PT > ST	C > ST >All > PT

In closing this discussion it is worth noting that desirable changes in pupil behavior (factor 3) are at the heart of ESEA program goals, most difficult to bring about, and most difficult to assess.

CHAPTER 3
RESULTS OF SCHOOL ADMINISTRATOR SURVEY

Description

The school administrator survey involved an instrument identical to the teacher survey save for several items which were inappropriate for school administrators. It was given at the same time as the teacher survey to school principals, assistant principals, and administrative aides. It was given anonymously as was the teacher survey. The results of the two surveys were kept separate not only because some of the items were different but because administrators "see" the school situation from a quite different perspective than do individual teachers. This survey was given system-wide as well as in PT, ST, and C schools.

Since the results of the 1966 administrator survey were not factor analyzed last year because of the small number of ratings made, it was assumed that the factors would parallel those of the teachers. Different items were placed into factors rationally, rather than empirically.

Methods of Analysis

Analysis of the administrator survey paralleled that of the teacher survey with two exceptions. First, control school results were not analyzed simply because so few ratings are involved. With only three elementary and two secondary control schools, the maximum number of adminstrators ratings in each group was less than ten. Secondly, results were analyzed by combining elementary and secondary level ratings within PT schools and similarly within ST schools. Again only four PT and four ST secondary schools are involved and the number was too small to be of sufficient reliability for analysis. Thus, the three-way analysis of variance consisted of two school groups (PT and ST); years, 1966 and 1967; and items, 48 items common to both years. The result was a 2 x 2 x 48 table of item means.

The above gross analysis was followed by less analytic procedures where factor and item means were compared by inspection. Other informal comparisons were made with system-wide administrator ratings.

Results

Summary of the results is shown in table 6. Inspection of the grand means at the bottom of table 6 foretells the results of analysis. There was a significant year effect with 1967 ratings (4.64) higher than 1966 ratings (4.11). Ratings of PT school administrators were significantly higher (4.51) than those of ST administrators (4.24). Finally, significant interaction was noted with PT increasing by .66 and ST by .39 from 1966 to 1967. PT ratings were higher in 1966 and in 1967 and increased more than ST ratings.

There were considerable differences in ratings among the various factors both in terms of 1967 means and change over 1966. First, one is impressed with the fact that adminstrator ratings in general are quite high. With the exception of special education needs, all mean factor ratings among PT administrators are over 4.00. The same is true among ST except for factor 3 where the mean rating of pupil-parent characteristics is a little below 4.00. The only factor rating decrease (-.11) was in morale with ST schools. In spite of this decrease, the 1967 rating is quite high (5.48). PT morale, while increasing .20 in 1967, was the lowest increase in factor means within PT schools. The two highest 1967 factor ratings were factors 6 and 7, library resources and books and supplies; this being true in both PT and ST schools. This finding is consistent with the teacher survey and certainly reflects to a large extent the resource centers which were installed in all PT and ST schools. The two lowest 1967 factors in both PT schools and ST schools were factor 2, special education needs, and factor 3, pupil-parent characteristics.

From the viewpoint of change, PT increased most in factors 6, library resources, and factor 5, improving school program, while ST changed most in factor 6, library resources, and factor 7, books and supplies.

Table 6. Mean Ratings of Administrator Survey by School Group, Year, Factor, and Item.

Factor Item	Primary Target			Secondary Target			Other*		
Group - / Year -	'66	'67	'67-'66	'66	'67	'67-'66	'66	'67	'67-'66
N =	(32)	(48)		(49)	(54)		(81)	(78)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Factor 1: MORALE									
- Staff morale.	5.19	5.46	+ .27	5.66	5.35	- .31	5.78	5.45	- .33
- Professional cooperation among school staff.	5.59	5.77	+ .18	5.82	5.87	+ .05	5.89	5.78	- .11
- Teacher-Administration cooperation.	5.88	6.15	+ .27	5.88	5.78	- .10	6.11	6.04	- .07
- Pupil-faculty relations.	5.39	5.50	+ .11	5.45	5.36	- .09	5.93	5.74	- .19
- School's attempt to reach parents.	5.09	5.73	+ .64	5.49	5.50	+ .01	5.76	5.73	- .03
- Challenge of my position.	6.09	6.19	+ .10	5.88	5.93	+ .05	6.22	6.33	+ .11
- Extent of teacher absenteeism.	4.88	4.71	- .17	4.96	4.60	- .36	5.33	4.97	- .36
- My involvement in decisions affecting my school.		5.65			5.73			5.51	
- Principal's voice in policy making.		5.96			5.49			5.18	
FACTOR AVERAGE	5.44**	5.64	+ .20	5.59	5.48	- .11	5.86	5.72	- .14
Factor 2: SPECIAL EDUCATION NEEDS									
- Provision for emotionally-disturbed child.	1.88	3.15	+1.27	1.80	2.41	+ .61	2.29	2.36	+ .07
- Provision for socially-maladjusted child.	2.16	2.63	+ .47	1.92	2.54	+ .62	2.51	2.91	+ .40
- Provision for physically-handicapped child.	3.59	3.73	+ .14	2.57	3.17	+ .60	3.53	4.19	+ .66
- Present curriculum for the disadvantaged.	3.52	4.56	+1.04	2.90	3.70	+ .80	3.63	3.60	- .03
FACTOR AVERAGE	2.79	3.52	+ .73	2.30	2.96	+ .66	2.99	3.27	+ .28
Factor 3: PUPIL-PARENT CHARACTERISTICS									
- Pupil aspiration level.	3.10	4.17	+1.07	3.14	3.83	+ .69	4.99	5.23	+ .24
- Parent participation in school.	2.72	3.23	+ .51	3.00	3.55	+ .55	4.82	4.97	+ .15
- Pupil achievement.	3.78	4.17	+ .39	3.43	4.11	+ .68	5.26	5.28	+ .02
- Parent involvement.	3.63	3.61	- .02	3.41	3.52	+ .11	4.95	4.91	- .04
- Supportive attitude of parents.	4.19	4.52	+ .33	4.35	4.63	+ .28	5.57	5.41	- .16
- The type of pupils in my school.	3.41	3.83	+ .42	3.69	3.90	+ .21	5.31	5.25	- .06
- Pupil image of self.	3.25	3.89	+ .64	3.36	3.87	+ .51	4.98	5.23	+ .25
- Pupil attendance.	3.91	4.23	+ .32	4.04	4.00	- .04	5.75	5.14	- .61
- Overall health level of pupils.	3.59	4.25	+ .66	4.17	4.56	+ .39	5.71	5.50	- .21
- Motivation of pupils.	3.97	4.48	+ .51	3.55	4.17	+ .62	5.33	5.27	- .06
- Behavior standards of pupils.	4.53	4.17	- .36	4.47	4.08	- .39	5.65	5.13	- .52
- Previous academic preparation of pupils.	3.06	3.81	+ .75	3.30	3.64	+ .34	4.67	4.62	- .05
- Pupil acquaintance with total community.	3.34	4.27	+ .93	3.06	3.75	+ .69	4.73	4.75	+ .02
- Degree of pupil tardiness.	3.59	3.78	+ .19	3.55	3.52	- .03	5.25	5.04	- .21
- Pupil discipline.	5.09	4.89	- .20	4.57	4.63	+ .06	5.73	5.36	- .37
- Provision for pupils' cultural growth.	4.13	5.00	+ .87	3.48	4.52	+1.04	5.20	5.49	+ .29
- Provision to challenge able learner.	4.25	4.67	+ .42	3.68	4.76	+1.08	5.39	5.53	+ .14
FACTOR AVERAGE	3.58	4.03	+ .45	3.61	3.94	+ .33	5.25	5.18	- .07
Factor 4: CONDITIONS FOR INSTRUCTION									
- Teacher time to plan.	4.06	4.70	+ .64	4.35	4.78	+ .43	4.56	4.50	- .06
- Time for teachers to teach.	5.19	5.58	+ .39	5.16	5.50	+ .34	5.67	5.63	- .04
- Time and place for pupils to study.	3.48	4.56	+1.08	3.07	3.84	+ .77	4.22	4.33	+ .11
- Provision for academic remediation.	3.94	5.56	+1.62	3.20	3.99	+ .79	3.76	4.29	+ .53
- Teacher-Pupil ratio.	4.53	5.71	+1.18	4.37	4.90	+ .53	4.25	4.87	+ .62
FACTOR AVERAGE	4.28	5.22	+ .94	4.03	4.60	+ .57	4.49	4.72	+ .23
Factor 5: IMPROVING SCHOOL PROGRAM									
- Provision for visiting teacher services.	4.38	5.23	+ .85	4.43	5.05	+ .62	5.23	5.38	+ .15
- Provision for supervisory personnel.	4.56	5.25	+ .69	4.61	5.09	+ .48	5.41	5.51	+ .10
- Adequacy of in-service training.	4.52	5.29	+ .77	4.37	4.72	+ .35	5.03	5.10	+ .07
- Field trip opportunities.	4.47	5.96	+1.49	3.71	4.56	+ .85	5.32	5.73	+ .41
- School's provision for pupil health.	4.25	5.30	+1.05	4.34	4.53	+ .19	4.65	4.81	+ .16
- Adequacy of enrichment activities.	4.16	5.48	+1.32	3.34	4.51	+1.17	5.07	5.21	+ .14
FACTOR AVERAGE	4.39	5.42	+1.03	4.13	4.74	+ .61	5.12	5.29	+ .17
Factor 6: LIBRARY RESOURCES									
- Adequacy of school library.	3.44	6.25	+2.81	3.26	5.64	+2.38	4.11	4.48	+ .37
- Availability of professional reading matter.	4.34	5.94	+1.60	4.51	5.69	+1.18	4.95	5.63	+ .68
FACTOR AVERAGE	3.89	6.10	+2.21	3.89	5.67	+1.78	4.53	5.06	+ .53
Factor 7: BOOKS AND SUPPLIES									
- Adequacy of supplies.	5.59	6.13	+ .54	5.17	5.74	+ .57	6.07	6.17	+ .10
- Availability of books.	5.41	6.17	+ .76	4.92	5.77	+ .85	5.68	6.03	+ .35
FACTOR AVERAGE	5.50	6.15	+ .65	5.05	5.76	+ .71	5.88	6.10	+ .22
Factor 8: SCHOOL PLANT									
- Adequacy of school playground.	3.50	4.09	+ .59	3.46	4.20	+ .74	4.88	5.01	+ .13
- Adequacy of school building.	4.81	5.39	+ .58	4.17	4.57	+ .40	4.53	4.46	- .07
- Adequacy of parking facilities.	4.94	5.56	+ .62	3.98	4.32	+ .34	5.38	5.42	+ .04
- Adequacy of pupil lunchroom facilities.	4.22	5.06	+ .84	4.46	5.07	+ .61	4.05	4.62	+ .57
- Adequacy of faculty lunchroom facilities.	4.09	4.56	+ .47	4.34	4.95	+ .61	4.53	5.17	+ .63
FACTOR AVERAGE	4.31	4.93	+ .62	4.08	4.62	+ .54	4.67	4.94	+ .27
Factor 9: EDUCATION ACT									
- My assessment of Education Act program.		5.48			4.43			4.01	
- My understanding of Education Act program.		5.83			5.33			4.74	
FACTOR AVERAGE		5.66			4.88			4.38	
AVERAGE FOR 48 COMMON ITEMS	4.18	4.84		4.04	4.43		4.99	5.07	
DIFFERENCES 1967 - 1966			+.66			+.39			+.08

*Other includes all administrators except PT and ST.

**The last two items of factor 1 are not included in the average for factor 1.

Since the general tendency in both PT and ST schools is toward increased ratings over 1966, item differences showing decreases in ratings take on considerable significance. In this regard, two items are rather conspicuous in their decrease in both PT and ST schools. The first is the item "behavioral standards of pupils," which showed the largest decrease in both PT and ST, and second "teacher absenteeism" which decreased .17 in PT schools while decreasing .36 in ST schools. Not shown in the table but certainly of interest, is the fact that these two items decreased in both elementary and secondary level schools.

It is interesting to observe that factor 9, Education Act, was assessed and understood to a higher extent among PT administrators as compared to ST. The two items comprising factor 9 were given only in 1967. Both PT and ST rate "understanding of Education Act" considerably higher than "assessment of Education Act." ST, however, showed a much larger difference between understanding and assessment as compared to PT.

Comparison with Other School Administrator Ratings. Columns 7, 8, and 9 show the means and changes for "other" administrators in the school system. This classification is exclusive of PT and ST. Taking the average of all ratings, it is seen that other administrators increase by .08 from 1966 to 1967 thus showing an increase significantly less than either PT or ST administrators. Decrease in morale by .14 parallels that for ST which in turn makes the increase of .20 in PT more significant. This same line of reasoning applies for virtually all factors where in terms of increase over 1966, PT>ST>other.

Perhaps the most important factor difference in terms of 1967 means is the pupil-parent characteristics factor, where "other" administrators' ratings are over a full unit higher than those in PT or ST schools. The two items showing the largest decrease among "other" administrators were "school attendance of pupils" and "behavioral standards of pupils" somewhat paralleling the finding among PT and ST administrators.

Comparison with Teacher Ratings. Grand mean ratings by all teachers over all items was lower in comparison to all three groups of administrators discussed above. In general, it appears that administrator ratings were higher than teachers on all factors except special education needs which administrators rated more poorly than teachers.

Discussion

The most significant finding of the administrator survey is the fact that administrators in PT schools showed higher ratings than those in ST schools, thus confirming the general hypothesis. Not only were mean ratings higher among PT administrators but also changes in ratings over 1966 were higher. Comparing administrator with teacher ratings there is high correlation although administrator ratings tend to be higher and have more variability. This phenomenon may be a function of the smaller number of administrator ratings as compared to teacher ratings. Thus, the larger the number of ratings, the greater the tendency toward the mean of a rating scale.

Comparison of PT and ST ratings with "other" administrators shows that while the latter evaluations are generally higher on the various factors, the changes within both PT and ST are higher than "other." As with the teacher survey, the crucial factor is pupil-parent characteristics. One might predict that increase in PT and ST ratings on other factors will result eventually in similar means. The big payoff will be shown when factor 3 ratings parallel those in other schools.

CHAPTER 4
RESULTS OF STUDENT SURVEY

Description

A student survey consisting of twenty items was administered in May 1966 and a similar instrument consisting of twenty-five items was given in May 1967. All students in grades four through eleven in target and control schools and the suburban sample completed the survey anonymously. They were asked, however, to indicate the name of their school, grade level, and sex. The classroom teacher read directions to the students who were instructed to answer each item "yes" or "no." Answers were marked on the survey form and "scored" by Digitek. Non-public schools were included in the survey. This instrument was not administered below grade four because of the difficulty of such pupils reading the items.

The 1967 student survey (K=25 items) contained eighteen identical items to the 1966 survey (K=20 items). Seven different items appeared on the 1967 form. The latter were designed to measure pupil self-image.

Evidence of the reliability and validity of these instruments is lacking. Since they were given anonymously, test-retest reliability could not be ascertained. Internal types of reliability determination seem inappropriate since the survey measures several different types of factors. When time permits, concurrent validity studies of factors extracted from the survey to various school outputs will be conducted; e.g., school aspiration level and school achievement.

Factor Analysis. Results from the 1966 survey were subjected to factor analysis. Intercorrelations among survey items were surprisingly low leading to a suspicion of considerable "noise" measurement. This may be explained in part, however, to the relatively low maximum correlation possible because of the distributions of p and q. In spite of this, the factor structures seemed quite reasonable. Factor analyses were made on both a sample of elementary and secondary level pupils. For the most part, the factor structures were similar thus the results were synthesized. The item clusters or factors are seen in table 7.

Methods of Analysis

Analysis was aimed primarily at response differences from 1966 to 1967 in PT, ST, and C schools. In view of this, the major analysis was based on the eighteen items common to both years. The method was to employ a four-way analysis of variance: year, 1966, 1967; grade level, elementary 4-6 and secondary 7-9; school group, PT, ST, C; and items, eighteen items common to both 1966 and 1967 surveys. The percents of affirmative response in this 216 cell table were converted using the arc sine transformation upon which the analysis was based. This was viewed as a mixed model with second and higher order interactions being used as error estimates. Providing school group by year interaction proved significant, it was planned to analyze item groupings (based on the factor analysis) by school group and year using the chi square statistic.

A second line of analysis centered around comparisons of responses between suburban and target school pupils using the chi square statistic. Similar analyses were made for specific comparisons such as sex and grade level trends.

Results

General. Tables 7 and 8 show the percents of affirmative responses for elementary and secondary level pupils to all 1967 survey items and the 1966 results on the eighteen items common to both years. The latter are shown grouped as factors based on the 1966 factor analysis. Inspection of the difference columns reveals differences of small magnitude; the bulk of them being within 3%.

The analysis of variance revealed no significant difference either between 1966 and 1967 or with the school group by year interaction. This

Table 7 . Percents of Affirmative Responses to the Student Questionnaire by Item, Factor, Year, and Group for ELEMENTARY SCHOOLS.

Group -	Primary Target			Secondary Target			Control			Suburban
Factor Items / Year -	'66	'67	'67-'66	'66	'67	'67-'66	'66	'67	'67-'66	'67
N =	(3307) (1)	(3122) (2)	(3)	(6086) (4)	(5649) (5)	(6)	(814) (7)	(690) (8)	(9)	(2395) (10)
Factor 1: VALENCE TOWARD TEACHER										
- Do you need more help from your teacher?	69.2%	69.2%	0	66.8%	67.2%	+ .4%	59.1%	58.4%	- .7%	43.2%
Factor 2: VALENCE TOWARD SCHOOL										
- Do you like school?	85.2	87.4	+ 2.2	82.6	83.2	+ .6	84.7	86.5	+ 1.8	81.6
- Do you like your school?	79.8	78.1	- 1.7	77.7	74.5	- 3.2	81.1	84.8	+ 3.7	84.1
- Would you like to spend more time in school?	52.9	51.9	- 1.0	45.7	46.0	+ .3	39.5	37.7	- 1.8	26.9
- Do you look forward to coming to school each morning?	82.1	83.9	+ 1.8	79.5	80.3	+ .8	72.0	75.2	+ 3.2	63.5
FACTOR AVERAGE	75.0	75.3	+ .3	71.4	71.0	- .4	69.3	71.1	+ 1.7	64.0
Factor 3: SCHOOL ANXIETY										
- Are you satisfied with the grades on your report card?	48.6	47.9	- .7	49.3	49.7	+ .4	50.9	51.0	+ .1	51.4
- Do you worry about your school work?	78.1	79.3	+ 1.2	77.7	76.8	- .9	72.1	74.8	+ 2.7	67.8
- Are you doing better in your school work this year?	74.6	71.8	- 2.8	71.7	69.2	- 2.5	72.1	71.7	- .4	73.7
- Do you get praise at home for good school work?	82.1	81.1	- 1.0	80.5	79.8	- .7	83.1	79.5	- 3.6	80.1
FACTOR AVERAGE	70.9	70.0	- .8	69.8	68.9	- .9	69.6	69.3	- .3	68.3
Factor 4: SCHOOL ASPIRATION										
- Do you think you will graduate from high school?	86.9	86.3	- .6	85.7	85.7	0	87.5	87.8	+ .3	92.5
- Do you hope to go to college?	90.3	90.8	+ .5	88.2	89.4	+ 1.2	87.2	88.0	+ .8	92.5
FACTOR AVERAGE	88.6	88.6	- .1	87.0	87.6	+ 1.2	87.4	87.9	+ .6	92.5
Factor 5: ATTITUDE TOWARD FIELD TRIPS										
- Do you enjoy field trips?	97.3	98.0	+ .7	95.1	95.6	+ .5	94.4	96.0	+ 1.6	95.4
- Do field trips help you in school work?	77.0	77.6	+ .6	72.9	70.9	- 2.0	72.7	71.0	- 1.7	80.0
FACTOR AVERAGE	87.2	87.8	+ .7	84.0	83.3	- .8	83.6	83.5	- .1	87.7
Factor 6: PUPIL-PARENT RELATIONSHIPS										
- Do you talk about school at home?	78.2	81.6	+ 3.4	81.7	80.3	- 1.4	82.7	84.7	+ 2.0	86.8
- Has someone from home ever talked to your teachers?	80.0	78.1	- 1.9	78.5	77.0	- 1.5	78.5	76.5	- 2.0	82.6
- Do you talk at home about what kind of jor or career you will have after you are out of school?	85.2	85.7	+ .5	84.2	84.1	- .1	84.3	84.7	+ .4	77.6
FACTOR AVERAGE	81.1	81.8	+ .7	81.5	80.5	- 1.0	81.8	82.0	+ .1	82.3
Factor 7: AMOUNT OF READING										
- Do you read books from a library?	83.6	90.4	+ 6.8	84.2	91.1	+ 6.9	72.9	89.3	+16.4	92.5
- Do you read more than is required by your school work?	61.3	64.6	+ 3.3	60.3	57.6	- 2.7	55.1	60.5	+ 5.4	64.5
FACTOR AVERAGE	72.5	77.5	+ 5.1	72.3	74.4	+ 2.1	64.0	74.9	+10.9	78.5
AVERAGE FOR 18 COMMON ITEMS	77.4%	79.0%		75.7%	75.9%		73.9%	75.9%		74.3%
DIFFERENCES 1967 - 1966	+1.6%			- .2%			+1.6%			
Items on 1967 Survey Only:										
- Do you get along better outside of school than in school?		48.1%			47.8%			44.1%		49.1%
- Do you think your teachers usually expect too much of you?		38.3			35.7			30.0		31.1
- Do your teachers think you are doing well in your school work?		62.1			60.0			65.5		68.3
- Do your parents think you are doing well in your school work?		70.1			69.4			71.3		73.7
- Do you think you could do well in any school subject if you studied hard enough?		94.7			95.4			93.7		94.2
- Are your lowest grades usually your teacher's fault?		18.4			13.2			9.8		10.0
- Do you think you could do well in any kind of job you choose?		71.4			81.8			65.7		64.2

Table 8 . Percents of Affirmative Responses to the Student Questionnaire by Item, Factor, Year, and Group for SECONDARY SCHOOLS.

Factor Items / Group -	Primary Target			Secondary Target			Control			Suburban
Year -	'66	'67	'67-'66	'66	'67	'67-'66	'66	'67	'67-'66	'67
N =	(2310)	(2436)		(4189)	(4031)		(1157)	(1555)		(1586)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Factor 1: VALENCE TOWARD TEACHER										
- Do you need more help from your teacher?	59.1%	60.7%	+ 1.6%	61.8%	58.4%	- 3.4%	54.6%	51.9%	- 2.7%	47.4%
Factor 2: VALENCE TOWARD SCHOOL										
- Do you like school?	77.1	78.1	+ 1.0	75.7	75.2	- .5	64.9	63.9	- 1.0	70.3
- Do you like your school?	70.1	71.4	+ 1.3	67.7	63.8	- 3.9	64.6	65.6	+ 1.0	71.4
- Would you like to spend more time in school?	18.7	17.8	- .9	19.8	16.8	- 3.0	11.6	10.9	- .7	10.3
- Do you look forward to coming to school each morning?	65.0	66.0	+ 1.0	60.5	62.8	+ 2.3	43.6	46.8	+ 3.2	38.1
FACTOR AVERAGE	57.7	58.3	+ .6	55.9	54.7	- 1.3	46.2	46.8	+ .6	47.5
Factor 3: SCHOOL ANXIETY										
- Are you satisfied with the grades on your report card?	34.8	35.0	+ .2	32.9	37.5	+ 4.6	33.7	34.4	+ .7	33.6
- Do you worry about your school work?	74.5	72.8	- 1.7	78.0	73.4	- 4.6	71.1	71.7	+ .6	76.1
- Are you doing better in your school work this year?	58.8	59.3	+ .5	58.5	63.8	+ 5.3	56.2	56.1	- .1	59.2
- Do you get praise at home for good school work?	66.9	65.4	- 1.5	67.1	67.6	+ .5	60.7	62.9	+ 2.2	69.2
FACTOR AVERAGE	58.8	58.1	- .6	59.1	60.6	+ 1.5	55.4	56.3	+ .9	59.5
Factor 4: SCHOOL ASPIRATION										
- Do you think you will graduate from high school?	93.0	92.3	- .7	92.4	93.0	+ .6	90.0	87.9	- 2.1	95.6
- Do you hope to go to college?	73.9	71.4	- 2.5	76.3	75.8	- .5	67.9	59.9	- 8.0	81.1
FACTOR AVERAGE	83.5	81.9	- 1.6	84.4	84.4	+ .1	79.0	73.9	- 5.1	88.4
Factor 5: ATTITUDE TOWARD FIELD TRIPS										
- Do you enjoy field trips?	95.4	93.0	- 2.4	92.6	91.8	- .8	92.8	89.8	- 3.0	92.9
- Do field trips help you in school work?	76.5	73.8	- 2.7	71.8	70.5	- 1.3	70.6	68.2	- 2.4	71.1
FACTOR AVERAGE	86.0	83.4	- 2.6	82.2	81.2	- 1.1	81.7	79.0	- 2.7	82.0
Factor 6: PUPIL-PARENT RELATIONSHIPS										
- Do you talk about school at home?	74.3	72.7	- 1.6	75.5	75.5	0	71.8	72.2	+ .4	77.7
- Has someone from home ever talked to your teachers?	61.0	57.7	- 3.3	65.0	60.2	- 4.8	60.0	51.6	- 8.4	65.7
- Do you talk at home about what kind of job or career you will have after you are out of school?	84.6	84.1	- .5	84.3	83.0	- 1.3	79.5	77.3	- 2.2	79.9
FACTOR AVERAGE	73.3	71.5	- 1.8	74.9	72.9	- 2.0	70.4	67.0	- 3.4	74.4
Factor 7: AMOUNT OF READING										
- Do you read books from a library?	68.3	62.5	- 5.8	68.7	62.6	- 6.1	46.9	62.8	+15.9	67.7
- Do you read more than is required by your school work?	44.7	40.2	- 4.5	41.5	39.4	- 2.1	42.4	35.3	- 7.1	43.0
FACTOR AVERAGE	56.5	51.4	- 5.2	55.1	51.0	- 4.1	44.7	49.1	+ 4.4	55.4
AVERAGE FOR 18 COMMON ITEMS	66.5%	65.2%		66.1%	65.1%		60.2%	59.4%		63.9%
DIFFERENCES 1967 - 1966	-1.3%			-1.0%			- .8%			

Items on 1967 Survey Only:

	(2)	(5)	(8)	(10)
- Do you get along better outside of school than in school?	56.6%	60.0%	62.8%	53.4%
- Do you think your teachers usually expect too much of you?	38.2	42.9	41.6	39.4
- Do your teachers think you are doing well in your school work?	59.2	57.9	46.2	49.6
- Do your parents think you are doing well in your school work?	63.9	62.3	51.9	54.2
- Do you think you could do well in any school subject if you studied hard enough?	92.5	91.4	89.5	90.0
- Are your lowest grades usually your teacher's fault?	17.5	17.7	16.0	14.9
- Do you think you could do well in any kind of job you choose?	73.3	73.2	59.7	57.3

comes as no surprise based on even casual inspection of the tables.* The percents of affirmative responses by school group and year are shown below.

School Group	Year 1966	1967	Difference '67-'66	Group Average
PT	72.5%	71.6%	-.9%	72.0%
ST	70.9	70.3	-.6	70.6
C	67.0	67.4	+.4	67.2
Year Average	70.1	69.8		

The year average means are very close (.3%) and the difference column is highly similar showing no interaction. School group means, however, were significantly different (F=11.8, df 2,139) with PT=ST>C. This result is similar to those obtained last year--thus no observable differences were detected.

Factor Differences. Since the analysis of variance showed no significant difference in year or school group by year interaction, no further interpretation was considered. Of the total 42 factor average differences from one year to the next for PT, ST, and C, only two varied by more than 3% at the elementary and 5 at the secondary level. Among elementary pupils there were increases in the reading factor, of 5.1% in PT, 2.1% in ST but 10.9% in C. Increases in target schools on the reading factor are understandable since these schools obtained libraries this past year. The significance of this rise is diminished, however, because C school pupils showed a 10.9% rise in spite of the fact that no new libraries were introduced in these schools. Why this occurred is not known. Perhaps mere chance accounts for the changes, but unfortunately, we find a similar phenomenon occurring at the secondary level. The reading factor in PT decreased by 5.2%, ST decreased by 4.1%, while C increased 4.4%. We have no reasonable explanation.

Target and Suburban Differences. Unique to this 1967 evaluation was measurement of suburban children on the student survey. While difference comparisons are not possible from 1966 to 1967, it is possible and enlightening to compare factor means for 1967 only between target school children and their suburban peers.

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*Note that the analysis of variance was based on the data in both tables; i.e., elementary and secondary.

Interestingly the factors which were significantly different were the same for the elementary as they were for the secondary comparisons and, in addition, were in the same direction. Four of the seven factors were significantly different between target and suburban pupils. The first was teacher valence, where fewer suburban pupils indicated they needed more teacher help in comparison to target pupils. The school valence factor also showed suburban pupils to have a lower school valence than target pupils. Finally, pupil aspiration and the reading factors both favored suburban pupils.

While the remaining three showed no significant difference as a whole, item means do show some revealing insights. Suburban children do seem to worry more about their school work, talk more about school at home, and indicate their parents talk to their teachers more than target children.

Comparison of the seven items which were included only on the 1967 survey also reveals some interesting differences between suburban and target school pupils. In general, these seven items attempted to measure the self-image or self-confidence and ego strength of the students. Elementary target pupils indicated to a greater extent than suburban pupils that teachers expect too much of them. This difference was not noted among secondary level pupils. On the two items pertaining to whether or not parents and teachers think the pupil is doing well in school there is an interesting reversal. Elementary pupils in suburban schools believe both parents and teachers think they are doing well to a greater extent than elementary target school pupils. At the secondary level, however, a higher proportion of target school pupils believe that their parents and teachers think they are doing well in comparison to suburban pupils. One may infer that as suburban pupils reach secondary grades their self-confidence decreases somewhat perhaps reflecting greater parental pressure on the need for academic excellence. Among target school pupils there seems to be more anxiety on this point in the elementary grades than there is in the secondary grades in contrast to suburban schools.

The last three items shown in tables 7 and 8 reveal that over nine out of ten pupils in both suburban and target schools believe that they could do well in any school subject if only they studied hard enough. Assuming the validity of this item, the implications are extremely important. Thus, target and suburban pupils view their success in school primarily as a function of how hard they study rather than to other factors such as feelings of inferiority. While the largest proportion of both elementary and secondary pupils do not believe that low grades are the fault of their teacher, there does seem to be some tendency for a higher proportion of target school pupils (elementary and secondary) to believe this to be the case more than suburban pupils. Finally, it is noted that a significantly higher proportion of target school children think they could do well in any type of job they choose in comparison to suburban pupils. In short, there doesn't seem to be any direct evidence of a lack of ego strength or self-confidence on the part of target school pupils at least in comparison with suburban pupils. Last year's evaluation showed similar results when target school pupils were compared with control school pupils.

Grade Level Differences. One of the most significant findings of last year's evaluation was the fact that there was an apparent disenchantment with school as children progressed in the grades especially when they left the elementary school and entered the junior high school. This same phenomenon was confirmed in this year's evaluation. Progressive disenchantment with school is most pronounced in comparing the school valence factor between elementary and secondary level pupils. This factor decreases about 20% in affirmative responses from the elementary level to the secondary level.

Disenchantment is also revealed in parent interest and in certain items in the school anxiety factor. For example, whereas approximately one-half of elementary grade pupils are satisfied with grades on their report cards, only one out of three are so satisfied at the secondary level.

Sex Differences in Responses. As one might expect, the attitudes of girls differ considerably from those of boys relative to survey items. Of the twenty-five survey items, the percent of affirmative response was greater for girls than it was for boys on thirteen items while no significant difference was observed on eight items and three items show boys higher than girls. Girls, in general, responded more affirmatively to those items dealing with valence toward school, aspiration, amount of reading done, and teacher valence. Girls also showed, however, more anxiety toward school than did boys.

On only three items did boys have a higher percent of affirmative response than girls. More boys than girls believe they got along better outside of school than in school, more thought that teachers expected too much of them, and more thought that low grades were usually their teacher's fault.

The factor dealing with field trips showed no significant difference between the sexes. The items dealing with doing well in school subjects if one studied hard enough and doing well in any kind of job that is chosen, showed no differences among boys and girls. Figure 1 shows two rather important generalizations brought out in this chapter as reflected by responses to the question, "Would you like to spend more time in school?." First, the figure shows that in both elementary and secondary schools, girls show a greater tendency to want to spend more time in school than boys. Secondly, it shows that target school children have a higher valence toward school than suburban children.

Discussion

The data presented on the student survey do not support the hypothesis

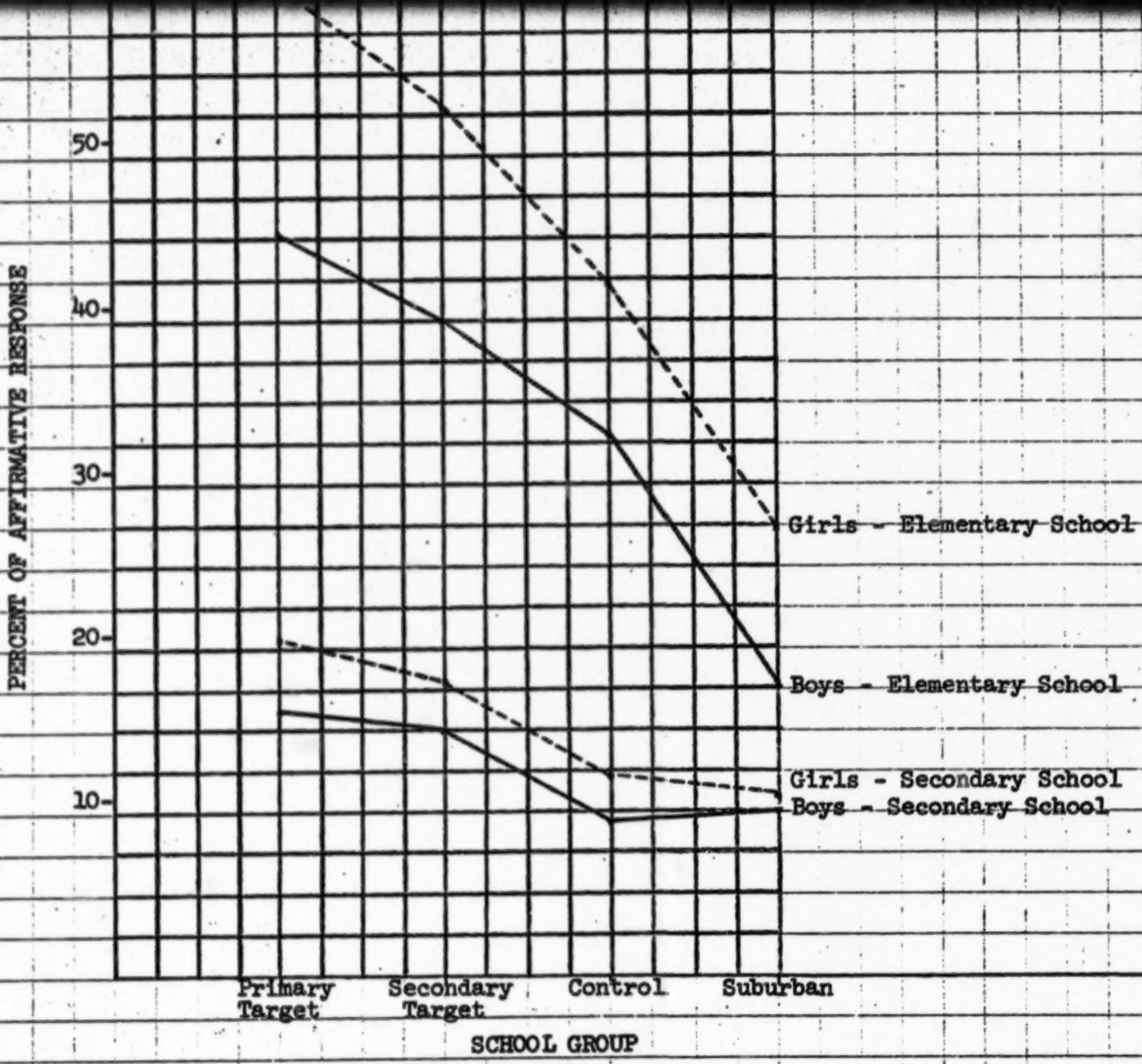

Figure 1. Percent Affirmative Responses to: Would you like to spend more time in school? Student Survey, 1967.

that desirable changes in student attitudes would occur among target school pupils to a greater extent than control school pupils. The general finding was that of no significant difference in pupil response from 1966 to 1967, this being true in PT, ST, and C schools. The pupil responses in 1967, however, do continue to show a pattern of PT>ST>C.

Perhaps the most interesting finding relative to the student survey were those comparisons of target school pupils with their suburban peers. In general, we found that target school pupils derive more satisfaction from school than do suburban pupils. Contrast in the desirability of home and school environment may account for this phenomenon. There was no evidence that the self-image and confidence of target school pupils was any less than that of suburban school pupils. In fact, there is some evidence to the contrary. In response to the items, "Do you think you could do well in any school subject if you studied hard enough?," and "Do you think you could do well in any kind of job you choose?," target school pupils either equalled or surpassed suburban school pupils in their percent of affirmative response. On the other hand, those factors which are commonly thought of as distinguishing suburban from disadvantaged children were confirmed in these data. For example, there was confirmation that suburban pupils tended to have higher aspiration level, tend to read more, and tend to show more parent interest than pupils in target schools.

The differences observed between sexes and between grade levels come as no surprise and are well confirmed in previous investigation. Girls seem to enjoy school to a greater extent than boys and they seem to have a better adjustment to the demands of school than do boys. Boys tend to rationalize lack of success as being the fault of their teachers.

The apparent better adjustment of elementary children versus secondary children to the school situation was confirmed in the results of last year's student survey. Why this alienation phenomenon occurs as children progress through the grades needs considerable study. Of great importance, however, is the fact that this phenomenon occurs with equal intensity with suburban children as it does with target school children.

CHAPTER 5
RESULTS OF PARENT SURVEY

Description

The Parent Survey, which was given in May 1967, consisted of an eighteen item instrument administered on a personal interview basis to a random sample of twenty parents from each of the schools comprising PT, ST, and C. In addition, it was administered to the suburban school sample. The sample was drawn from pupil census cards arranged by school. Every nth pupil was selected to obtain the sample of twenty per school. Parents of the pupils selected in target schools were interviewed by parent aides in the ESEA program; control and suburban school parents were interviewed by PTA volunteers. All interviewers were given an afternoon of training and instruction in giving the survey. Of the 1,080 parents sampled, there were 1,017 returns or 94%.

It is important to note that the parents taking the survey were not necessarily parents of pupils receiving service in the Education Act program. The universe of parents sampled was all parents living in the schools sampled who have children in school--either public or private school. While the likelihood of observing significant differences in responses from one year to the next with target and control area parents was deemed slight, it was nevertheless thought important as continuing baseline data. It is conceivable, in other words, that some day the ESEA program may show measurable effects on parents. It is worthy of note that the survey items did not connect the interview with the Education Act program in any identifiable way. Thus, the parents reacted to general questions about their child's education and not to the worthwhileness of the ESEA program, per se. It was believed that an undesirable Hawthorne effect would be created if the parents were asked to react directly to the effectiveness of ESEA.

One of the limitations of this approach was that the surveys were not administered to an identifiable sample of parents whose children were receiving ESEA services. Next year (spring, 1968) a subsample of parents of children in the ESEA program will be surveyed in addition to the type of sample herein defined.

In both the 1966 and 1967 surveys the parents were read the items on the survey and asked to respond in an affirmative or negative manner to each question. The interviewer simply marked on the survey form "yes" or "no" in response to each question. The survey forms were scored by Digitek and scored in terms of percent of affirmative responses by item and type of school.

The 1966 and 1967 parent surveys contained eleven items in common thus leaving seven items unique to the 1967 survey. Analysis of change from 1966 to 1967 was made only for these eleven common items and only across PT, ST, and C since the survey was not given to the suburban school sample in 1966.

Factor Analysis. Factor analysis of the 1966 survey form was made. As with the student survey, item intercorrelations were surprisingly low thus leading to the suspicion that more noise measurement than signal measurement was being made. It is highly probable, however, that the low intercorrelations were at least in part a function of the typically high percentage of affirmative responses to items. This situation produces an artificially low ceiling on correlation.* In spite of the low intercorrelations, the factor structure of the survey seemed to yield fairly reasonable results. The item clusters or factors of the eleven items common to both years will be seen later in summary form.

Methods of Analysis

Analysis of data was focused on change from 1966 to 1967 for the eleven common items among PT, ST, and C. Two general procedures were employed.

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*Maximum phi coefficients per item by year tended to be in the low eighties.

First, data were analyzed in a four-way analysis of variance design. The factors analyzed were: years, 1966 versus 1967; level, grade level (K-3, 4-6, 7-11) at which parent's child was attending; school group, PT, ST, or C; and item, the eleven items common to the surveys given in 1966 and 1967. The percentage of affirmative responses in this 198 cell table were converted using the arc sine transformation as described by Snedecor[1]. The latter transformations were used in the analysis of variance. The major interest in this analysis was, of course, the school group by year interaction. The analysis of variance was considered as a mixed model with items being considered a random factor and groups, year, and level being considered fixed.

Secondly, factors identified through the factor analysis were scored in terms of percent "yes" and "no" by school group and year. This procedure led to a twelve cell contingency table to which the chi square statistic was applied. This latter procedure was seen as a compliment to the analysis of variance.

Finally, survey items unique to the 1967 survey were simply compared across PT, ST, and C and S using the chi square statistic to determine significance of difference.

Results

General. Table 9 shows the percents of affirmative responses made to 1967 survey items and to the eleven items common to both years which are shown grouped as factors based on the factor analysis. Parent classification by grade level of their children is not shown because analysis showed no significant difference among levels. Of the 33 comparisons within PT, ST, and C from 1966 to 1967, it is noted that all eleven from PT show a decline; nine of the eleven in ST show decline; and ten of the ble 9. Percents of Affirmative Responses to the Parent Questionnaire by Item[a], Factor, Year, and School Group.

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[1] Snedecor, George, Statistical Methods. Ames, Iowa: Iowa State College Press, 1957, pp. 318 & 319.

actor Items				Parents of Children in--						
Group -	Primary Target			Secondary Target			Control			Suburban[b]
Year -	'66	'67	'67-'66	'66	'67	'67-'66	'66	'67	'67-'66	'67
N =	(276)	(289)		(362)	(405)		(78)	(94)		(229)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
actor 1:										
- Does (c) study at home?	90.0%	80.0%	-10.0%	90.3%	85.9%	- 4.8%	89.7%	75.3%	-14.4%	89.3%
- Does ____ read at home?	94.5	87.5	- 7.0	92.7	86.9	- 5.8	92.3	82.8	- 9.5	89.5
FACTOR AVERAGE	92.3	83.8	- 8.5	91.5	86.2	- 5.3	91.0	79.1	-11.9	89.4
actor 2:										
- Is ____ improving in (his or her) school work?	93.8	84.1	- 9.7	93.4	85.8	- 7.6	93.6	79.4	-14.2	91.6
actor 3:										
- Does ____ like school?	97.8	91.0	- 6.8	97.8	96.0	- 1.8	92.2	84.0	- 8.2	96.9
- Do you like ____'s school?	98.2	97.6	- .6	96.7	94.0	- 2.7	96.1	94.6	- 1.5	96.9
- Would you like to know more about ____'s school?	91.6	85.9	- 5.7	92.6	82.8	- 9.8	75.3	72.6	- 2.7	65.5
FACTOR AVERAGE	95.9	91.5	- 4.4	95.7	90.9	- 4.8	87.9	83.7	- 4.1	86.4
actor 4:										
- Do you think the teacher and principal are interested in ____?	98.5	94.4	- 4.1	93.9	96.0	+ 2.1	83.3	94.5	+11.2	96.5
actor 5:										
- Has the school helped you to do more things with ____?	90.8	70.6	-20.2	81.5	78.1	- 3.4	72.2	68.8	- 3.4	55.9
- Has the school helped ____ in the use of (his or her) out-of school time?	86.0	63.5	-22.5	81.8	77.1	- 4.7	71.1	66.7	- 4.4	67.8
FACTOR AVERAGE	88.4	67.0	-21.3	81.6	77.6	- 4.0	71.6	67.7	- 3.9	61.8
actor 6:										
- Have you been encouraged to participate in school activities?	83.1	73.9	- 9.2	81.7	84.3	+ 2.6	71.4	69.2	- 6.6	79.5
- Are you in any way active in the school?	43.8	27.3	-16.5	34.5	29.7	- 4.8	22.0	20.3	- 1.7	43.2
FACTOR AVERAGE	63.4	50.6	-12.8	58.1	57.0	- 1.1	46.7	44.7	- 4.1	61.3
AVERAGE FOR 11 COMMON ITEMS	88.0%	77.8%		85.2%	81.5%		78.1%	73.5%		79.3%
DIFFERENCES 1967 - 1966	-10.2%			-3.7%			-4.6%			
Items on 1967 Survey Only:										
- Has ____ studied harder this year than last year?		71.9%			74.1%			72.9%		73.9%
- Do you think ____ will finish high school?		94.3			96.0			94.5		99.5
- Do you think ____ will go to college?		49.4			62.6			53.2		87.7
- Does ____ get along well with other students in school?		96.1			96.3			95.7		98.7
- Do you approve of ____'s friends?		90.9			93.6			91.0		98.7
- Has ____'s health been better this year than last year?		76.6			73.7			69.5		64.5
- Have you talked to the school nurse about ____?		12.9			15.7			10.7		7.8

(a) Items in 1966 survey which were not repeated in 1967 survey are not reported.
(b) Survey not given in suburban schools in 1966.
(c) The interviewer inserted the child's name in the blank spaces as the question was read.

eleven in C show a decline. On the average, PT parents show a decline of 10.2% while ST and C parents decline 3.7% and 4.6%, respectively, from 1966 to 1967. The analysis of variance confirmed a significant decline from 1966 to 1967 (F=90.3, df 1,146) but also confirmed the obvious interaction of school group by year (F=5.4, df 2,146). Thus, decline in affirmative responses among PT parents was significantly greater than the decline among ST and C parents.

Factor Differences. To obtain an idea where item decline from 1966 to 1967 was significantly different among PT, ST, and C, items were grouped on the basis of the 1966 factor analysis. These groupings are shown in table 9. The first three factors account for most of the variance in the factor analysis and are most directly related to pupil school performance. No significant difference was shown in decline of the latter three factors among PT, ST, and C.

Factors 4, 5, and 6 were significantly different among PT, ST, and C. In response to factor 4 (Are teacher and principal interested in your child?), C parents showed an increase of 11.2%, ST an increase of 2.1%, and PT a decline of 4.1% in affirmative response from 1966 to 1967. For factors 5 and 6, pupil-parent relation and school involvement, both ST and C declined slightly while PT declined much more.

Of importance, however, is the fact that in spite of large PT declines in factors 4, 5, and 6, the percents of affirmative responses in 1967 are about the same among PT, ST, and C parents. Thus, the large decline in PT probably is a function of their higher percents in 1966 compared with ST and C.

Target and Suburban Differences. How do suburban parent responses differ and how are they similar to target school parents? To answer this question, PT and ST parents were combined and compared with S parents for each item in 1967 only using the chi square test. The following items showed significantly higher affirmative response:

Suburban Parents Significantly Higher in % Yes

- Is ____ improving in school work?
- Does ____ study at home?
- Do you think ____ will finish high school?
- Do you think ____ will go to college? (very large difference)
- Are you in any way active in school? (large difference)
- Do you approve of ____'s friends?

Target School Parents Significantly Higher in % Yes

- Has the school helped you do more things with ____?
- Would you like to know more about ____'s school?
- Has ____'s health been better this year than last year?

It appears that many of our traditional notions of parent differences from target area to suburb are substantiated. Suburban parents have higher aspiration levels for their children, are optimistic and involve themselves in the school. Schools seem to be more important to target area parents but for various reasons, perhaps economic and social, they are more alienated in terms of involvement.

Sex Differences in Responses. Of the 1,017 parents surveyed in 1967, 100 were men and 917 were women. Were there differences in their responses to the survey items? Univariate analyses showed few items where men's responses differed significantly from those of women. Where differences occurred, women responded in a more affirmative manner than men. In no instance was there an exception. Following are the items on which significant difference appeared:

Women Significantly Higher than Men in % Yes

- Have you talked to the school nurse about ____?
- Do you think ____ will go to college?
- Are you in any way active in school?

The traditional role of the mother in our society probably accounts for the differences in the first and third items above. Expectation that children will go to college is less among men than women parents. What effect does this have upon boys? Is this an expression of a more realistic attitude? Which attitude should prevail?

Discussion

The parent survey represents an attempt to measure parent attitudes and their perceptions of their relations with their children, the school, and education in general. Certainly the instrument will respond to many factors other than Education Act especially with the type of random sample used. Since the Education Act program was never mentioned in connection with the survey, it is doubtful that the systematically lower ratings were a function of dissatisfaction with Education Act. Further, it was noted that a decline in parent response was noted among parents in control schools as well as target schools. The largest decline among parents in PT schools appears to be a function of their very high ratings in 1966 rather than low ratings in 1967. Parent responses among PT, ST, and C schools seemed to be about the same in 1967.

Results obtained from suburban parents did confirm some of the differences that are thought to distinguish middle class parents from parents of poverty.

Next year a few items will be added to the survey which will be aimed directly at measuring parent attitudes and knowledge of the Education Act program. These items will be put at the end of the survey so as not to bias responses to previous items. Further, next year's survey will include a subsample of parents whose children are directly engaged in Education Act services.

The parent survey detected no significant positive change nor did it reveal any significant negative change with respect to the Education Act program. The general decline noted from 1966 to 1967 probably was a function of general factors not associated with Education Act. The fact that Cincinnati experienced riots in June, one month after these surveys were administered, may have no connection with the general decline of affirmative responses but the association should at least be mentioned.

CHAPTER 6
PUPIL ACADEMIC ACHIEVEMENT

Description

A standardized achievement testing program was conducted during the year to measure the effects of the various services upon pupil academic achievement. In contrast to the achievement testing program conducted last year (1966) when all pupils in grades 2 through 10 in target and control schools were tested, this year's testing program was not as extensive. The ESEA testing program was conducted in conjunction with the system-wide testing program; the latter receiving priority relative to time of testing, type, and form of test. Where possible, results of the regular testing program were used for this evaluation.

The test battery and form given at each grade level are shown below:

Standardized Achievement Tests
Given by Grade Level

Grade Level	Test Used
2	Stanford Primary I, Form W
4	Stanford Intermediate I, Form X
5*	Stanford Intermediate I, Form W
6*	Stanford Intermediate II, Form Y
7	Stanford Advanced, Form X
10	Stanford Advanced, Form W

*Regular city-wide testing program.

As seen above, grades 3, 8, and 9 were not tested. The Stanford Achievement tests, based on local expert judgment, have good curricular validity in relation to our program. Their norms, however, are extremely demanding especially for the target school population. There is an approximate ten point difference in I.Q. between the test norm group and the city-wide median and a twenty point difference in PT schools in Cincinnati. In spite of this, the Stanford tests were used again this year in order to afford comparability from year to year. Further, our concern is more on achievement increase than it is on achievement status per se in relation to national norms.

The Metropolitan Achievement test which was used in grade 2 last year

(1966) was replaced by the Stanford tests used during the current year. This was done for the sake of consistency in expected longitudinal measurements over the next few years. The much lower grade 2 results using the Stanford in comparison to the Metropolitan tests attests to the demanding norms of the Stanford. It should also serve as a warning to other investigators of being very cautious in comparing grade scores from one test to another and even one test form to an alternate form.

Other changes in the testing program were made. Certain subtests such as science and social studies which were given in 1966 were not repeated in 1967. Further, grade 10 pupils were given the Stanford Advanced battery this year rather than the High School battery given in 1966. The Advanced battery is more appropriate in terms of difficulty level and other characteristics for this population of pupils.

The tests were administered by teachers within a stipulated two week period at the end of May in grades 2, 4, 7 and 10. Tests were given in grades 5 and 6 at mid-year because they were part of the regular testing program. All tests were machine scored. The tests were administered only to pupils in regular classes thus excluding pupils in slow learning classes, classes for the blind and deaf, and special classes for the physically and emotionally handicapped children.

Methods of Analysis

Distributions of grade scores for each grade and subtest were made for primary target, secondary target, and control schools. From these distributions, quartile points were determined. This total procedure has been programmed on data processing equipment.

Analytic procedures involving tests of significance were not applied. Literally thousands of pupils were tested thus making standard error statistics extremely small. Due to the practice of rounding grade scores to the nearest month, it was felt that comparisons which were different by only plus or minus one month should be ignored.

Because of the changes in tests used and grades tested, direct comparison of 1967 results with 1966 could be made only in grades 4, 6 and 7.

Results

A summary of the 1967 achievement testing program* is seen in table 10. In general, the results are highly similar to those obtained last year. The overall pattern at all quartile points is C>ST>PT; the same as in 1966. Inspection of the battery medians reveals PT and ST more similar than ST and C. The spelling, arithmetic computation, and arithmetic concepts subtests continue to show the highest relative achievement while the language subtest continues to show the lowest achievement level. Of interest is the fact that arithmetic computation achievement is higher than arithmetic concepts in the elementary grades but a reversal occurs in the secondary grades. This same phenomenon occurred last year and may reflect curricular emphasis from elementary to secondary schools.

Other results which parallel those found last year are as follows:

1. There is a cumulative deficit in achievement as defined by increasing deviation from norm with age-grade level.
2. The distribution of scores within a grade for PT, ST, and C generally shows a wider range of scores between Q_2 and Q_3 in comparison to Q_1 and Q_2. Thus, distributions are skewed positively.
3. There is a tendency for the range of grade scores between Q_1 and Q_2 (and Q_2 to Q_3) to increase with age-grade level; this reflecting increased range of achievement at higher grades.

Comparison of Grade Scores in 1967 to 1966. Of the six grade levels tested both years, three are subject to reasonably good comparison while

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*For comparable summary of the 1966 test results, the reader is referred to the Journal of Instructional Research and Program Development, Volume 2, Number 1, October, 1966, pp. 40-43, Cincinnati Public Schools.

Table 10. Summary of Standardized Achievement Test Grade Scores by Grade, Subtest, and Type of School.

Grade Level (Grade Norm) Date of Testing Battery Used Subtest	Type of School Primary Target Q_1	Q_2 Mdn.	Q_3	Secondary Target Q_1	Q_2 Mdn.	Q_3	Control Q_1	Q_2 Mdn.	Q_3
GRADE 2 (Norm: 2.9)		N=1266[(a)]			N=2069			N=244	
May, 1967									
Stanford Primary I, Form W									
Word Meaning	1.7	1.9	2.6	1.7	2.0	2.6	1.7	2.1	2.7
Paragraph Meaning	1.7	2.0	2.5	1.7	2.0	2.6	1.7	2.2	2.9
Vocabulary	1.5	1.9	2.4	1.6	2.1	2.7	1.6	2.2	3.3
Spelling	1.8	2.3	2.8	1.9	2.3	3.0	2.0	2.4	3.0
Arithmetic	1.7	2.0	2.4	1.8	2.2	2.5	1.9	2.3	2.7
Battery Mid-Score	1.7	2.0	2.5	1.7	2.1	2.6	1.7	2.2	2.9
GRADE 4 (Norm: 4.9)		N=1127			N=2220			N=276	
May, 1967									
Stanford Intermediate I, Form X									
Word Meaning	2.9	3.3	3.9	3.0	3.5	4.2	3.1	3.8	5.4
Paragraph Meaning	2.6	3.1	3.8	2.7	3.2	4.1	3.0	3.8	5.2
Language	2.6	3.0	3.5	2.6	3.1	3.9	2.9	3.6	5.1
Arithmetic Computation	3.1	3.7	4.3	3.1	3.7	4.4	3.6	4.1	4.9
Arithmetic Concepts	2.7	3.3	4.3	2.7	3.6	4.5	3.1	4.3	5.4
Battery Mid-Score	2.7	3.3	3.9	2.7	3.5	4.2	3.1	3.8	5.2

(a) In each case N equals the median number of pupils taking each subtest.

Table 10. Summary of Standardized Achievement Test Grade Scores by Grade, Subtest, and Type of School.

Grade Level (Grade Norm) Date of Testing Battery Used Subtest	Type of School Primary Target Q_1	 Q_2 Mdn.	 Q_3	 Secondary Target Q_1	 Q_2 Mdn.	 Q_3	 Control Q_1	 Q_2 Mdn.	 Q_3
GRADE 5 (Norm: 5.6)		N=1108			N=1853			N=239	
February, 1967									
Stanford Intermediate I, Form W									
Word Meaning	3.2	3.7	4.7	3.3	3.9	5.1	3.5	4.6	5.6
Paragraph Meaning	2.9	3.7	4.6	3.1	4.0	4.8	3.2	4.3	5.7
Spelling	3.4	4.1	5.1	3.6	4.4	5.3	3.6	4.6	5.7
Arithmetic Computation	3.7	4.3	4.9	3.8	4.4	5.0	4.0	4.9	5.6
Arithmetic Concepts	2.7	3.6	5.2	2.7	4.0	5.4	3.3	5.0	6.1
Arithmetic Application	3.4	4.0	4.9	3.4	4.1	5.1	3.4	4.4	5.6
Battery Mid-Score	3.3	3.9	4.9	3.4	4.1	5.1	3.5	4.6	5.7
GRADE 6 (Norm: 6.5)		N= 992			N=1756			N=233	
January, 1967									
Stanford Intermediate II, Form Y									
Word Meaning	3.8	4.4	5.4	3.8	4.6	5.7	3.9	5.1	6.6
Paragraph Meaning	3.9	4.4	5.3	4.0	4.6	5.7	4.1	5.0	6.7
Spelling	4.1	4.8	5.9	4.1	5.1	6.4	4.3	5.6	6.7
Language	3.2	3.8	4.9	3.4	4.1	5.6	3.6	4.9	6.7
Arithmetic Computation	4.1	5.0	5.6	4.1	4.8	5.6	4.4	5.2	6.0
Arithmetic Concepts	4.0	4.6	5.5	4.0	4.9	5.9	4.6	5.4	6.6
Arithmetic Application	3.8	4.2	5.1	3.8	4.4	5.6	4.0	5.1	6.8
Battery Mid-Score	3.9	4.4	5.4	4.0	4.6	5.7	4.1	5.1	6.7

Table 10. Summary of Standardized Achievement Test Grade Scores by Grade, Subtest, and Type of School.

Grade Level (Grade Norm) Date of Testing Battery Used Subtest	Type of School Primary Target Q_1	 Primary Target Q_2 Mdn.	 Primary Target Q_3	 Secondary Target Q_1	 Secondary Target Q_2 Mdn.	 Secondary Target Q_3	 Control Q_1	 Control Q_2 Mdn.	 Control Q_3
GRADE 7 (Norm: 7.9)		N= 998			N=1632			N=604	
May, 1967									
Stanford Advanced, Form X									
Paragraph Meaning	4.2	5.0	6.0	4.4	5.5	6.7	5.0	6.1	7.4
Language	3.5	4.7	5.8	3.7	5.0	6.6	4.1	5.5	7.2
Spelling	5.3	6.7	8.2	5.5	6.8	8.4	5.9	7.1	8.5
Arithmetic Computation	4.6	5.4	6.1	4.7	5.5	6.3	5.1	5.8	6.6
Arithmetic Concepts	5.3	6.1	7.2	5.4	6.3	7.5	5.8	7.0	8.2
Battery Mid-Score	4.6	5.4	6.1	4.7	5.5	6.7	5.1	6.1	7.4
GRADE 10 (Norm: 10.9)*		N= 333							
May, 1967									
Stanford Advanced, Form W									
Paragraph Meaning	5.8	6.8	8.6						
Language	5.2	6.3	7.8						
Spelling	6.7	8.4	10.4						
Arithmetic Computation	6.0	7.2	8.6						
Arithmetic Concepts	6.9	7.6	9.2						
Battery Mid-Score	6.0	7.2	8.6						

*This norm should be interpreted with caution since it is an extrapolated norm.

three are not. Different tests were used in grade 2 and there is a great difference in norms between the Metropolitan and Stanford tests, the latter being more demanding according to the Stanford Technical Supplement. This was borne out by local results which showed about two months "lower" achievement in 1967 as compared to 1966. Taking into consideration the differences in norming of the two tests, it is believed that second grade achievement probably was the same in 1967 as in 1966.

Grade 5 tests were not comparable because tests were administered during different times of the year; i.e., May 1966 vs. February 1967. The three month difference makes it tenuous to compare results even with a norm adjustment since these pupils do not normally increase one month of achievement for one month of school.

Tenth grade results are not comparable because different batteries were used; i.e., the High School battery in 1966 and the Advanced battery in 1967.

The test results from three grade levels were subject to comparison with last year's results. In grades 4, 6, and 7 the same or parallel form of the test was used and the time of testing was nearly the same in 1967 as it was in 1966. In making comparisons of achievement at a given grade level from one year to the next, it must be recognized that two different populations are being compared. Confidence in making such comparisons depends on the similarity of the two populations on non-achievement type factors. Unfortunately, we have no way of assessing possible differences in the population and we must assume they are essentially the same from one year to the next.

Table 11 summarizes achievement differences from 1966 to 1967 for grades 4, 6, and 7.

In the fourth grade, of the 30 quartile points represented in the five tests for PT and ST, 22 were identical; 3 (all in PT) were one month higher, and 5 were one month lower in 1967 as compared to 1966. One may conclude that fourth grade achievement in target schools remained essentially the same.

In the control schools, however, there were increases in 13 of the 15 quartile points. The increases ranged from one month to nine months with a median increase of four months. It is likely that the latter increases are due to different populations; this being more plausible with the small number (N=244) of fourth grade children in C schools.

Table 11. Months of Achievement Difference at Quartile Points from 1966 to 1967 by School Group, Subtest, and Grade Level.

Grade Level Subtest	Primary Target			Secondary Target			Control		
	Q_1	Q_2	Q_3	Q_1	Q_2	Q_3	Q_1	Q_2	Q_3
FOURTH GRADE									
Word Meaning	0	0	0	0	0	0	0	0	+7
Paragraph Meaning	0	+1	0	0	0	0	+2	+2	+5
Language	0	0	-1	0	0	0	+2	+4	+9
Arithmetic Computation	0	-1	0	-1	-1	-1	+3	+1	+4
Arithmetic Concepts	+1	0	+1	0	0	0	+3	+4	+6
SIXTH GRADE*									
Word Meaning	+1	-1	-1	0	0	+1	-1	+1	+3
Paragraph Meaning	+2	-1	-3	+2	0	-1	0	-3	-3
Spelling	0	-2	-3	-1	-1	0	-1	+1	+1
Language	0	-2	-2	0	-2	+2	+2	+2	+1
Arithmetic Computation	-1	+1	-1	-1	-2	-2	-4	-7	-18
Arithmetic Concepts	+1	0	+1	0	+2	+2	+3	-2	-11
Arithmetic Application	0	-2	-3	-1	-2	+1	-1	-5	-5
SEVENTH GRADE									
Paragraph Meaning	-1	-2	-1	-2	-1	+1	-4	-3	-6
Spelling	+6	+6	+8	+4	+2	+5	+2	+1	+5
Language	-5	-1	0	-6	-2	+2	-6	-6	-2
Arithmetic Computation	+1	0	-1	0	-1	0	-1	-2	-6
Arithmetic Concepts	+1	+1	+4	+1	+3	+6	0	+6	+6

*A one month adjustment was made for comparability to account for the one month difference in testing time.

Comparison in grade 6 cannot be made without adjustment because in 1967 the battery was given one month earlier than last year and a different form of the Stanford test was given. In spite of the forms (X in 1966 and W in 1967) being "equivalent," equal raw scores often yield different grade scores. Nevertheless, by adding one month to the 1967 grade scores to adjust for the one month difference in testing time, reasonably good comparisons can be made.

Of the 63 quartile points compared in PT, ST, and C for all seven subtests, increases over 1966 are shown in 19; five in PT, six in ST, and 8 in C. The predominant pattern, however, is one of decrease from one to three months but this is seen to occur the same in PT and ST. Decreases in the arithmetic achievement in C schools are rather large particularly at Q_2 and Q_3. Such large decreases can only be explained reasonably through a change in pupil population characteristics.

The I.Q.'s of the sixth grade groups were obtained in the regular testing program. It is of interest to note these aptitude scores as further indicators of differences among PT, ST, and C and also as an aid in interpreting academic achievement.

Table 12. I.Q. Quartile Points of Sixth Grade Pupils as Measured by the Lorge-Thorndike Verbal Ability Tests for PT, ST, and C in 1967.

School Group	Quartile Points Q_1	Q_2	Q_3
PT	80.19	88.74	96.64
ST	81.54	90.53	100.79
C	84.50	95.25	106.90

In the seventh grade the general pattern of change is mixed with 20 increases, 20 decreases, and 5 no change in quartile points. Increases and decreases are about equally divided among PT, ST, and C. Spelling increased most in general but primarily in PT. Arithmetic Concepts increased second most while language showed the greatest decline.

Other analyses of achievement change were made by comparing one grade in 1966 with the succeeding grade in 1967. The advantage is that we are dealing with essentially the same pupils from one year to the next except for failures or pupils who move. Based on the finding last year that target school pupils generally increase at the rate of about 6.5 months per 10 month school year,* it was found that this rate did not change.

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*This rate was based on cross-sectional data in 1966 while the comparison was made with rates based on "longitudinal data." It is assumed they are similar.

Discussion

The test results in 1967 parallel those in 1966 to a very great extent both in terms of overall achievement by grade and in terms of relative subtest strengths and weaknesses. If there is any single academic achievement target goal of the ESEA program, it is to increase the average rate of achievement growth significantly above the currently normal 6.5 months per 10 month school year.

The target pupils within the target schools are distributed within the lowest quarter (under the Q_1 point) of the results of this section. When the cumulative effects of the ESEA program start affecting academic achievement, Q_1 should be the first to show the change.

Perhaps the most important criterion in measuring the success of the ESEA program is pupil academic achievement. Yet this criterion is the most stubborn to increase and maintain. It will probably take years of concentrated effort starting in preschool years to significantly increase achievement. It should be remembered, however, that these results reflect school-wide achievement and the large majority of pupils in a school received no direct service of an intensive nature from the ESEA staff. It would have been strange and even suspect had average school achievement increased.

CHAPTER 7
PUPIL ATTENDANCE

Description

Absence rates are best expressed in terms of the percentage of pupils on the rolls of a given school who are recorded absent each day. Thus, to report the absence of a group of schools for one year is to give the ratio of average daily absence to average daily membership within these schools for that period.

The data in this report were compiled irrespective of reasons for pupil absence. In the first place, it is extremely difficult to arrive at an objective basis for distinguishing legal from illegal absence. Secondly, it is obvious that many pupils who might have valid reasons to be absent from school manage to attend nevertheless because they are sufficiently motivated not to want to miss the activities of a school day. Such motivation seems a desirable goal in trying to improve the educational program of disadvantaged youngsters.

The regularity of attendance, then, is seen as a reasonable index of a pupil's interest in school. Whether he attends seems to be a much more reliable measure of the meaning that the school experience has for him than whether he says that he likes school. If Education Act services produce favorable changes in attendance patterns, it is reasonable to conclude that these services have added new meaning to the education of disadvantaged pupils.

Method of Analysis

This report continues the comparison of absence rates in primary target, secondary target, and control schools that was begun in last year's program evaluation report. The chief focus is on changes that may have occurred in primary target schools since the initiation of Title I services. Secondary target schools, having received few services, are not expected to show significant gains. The control group is retained for comparison purposes.

The baseline established last year for the school years 1960-61 through 1964-65 will be used in this comparison. Date for 1965-66, representing a partial year of Education Act, will be reported separately. The comparison of this year's absence rates with those of the baseline period will show whether target school absence rates have changed favorably in comparison to control rates.

Results

Absence rates by grade in primary target, secondary target, and control schools for the five-year baseline period and for the school years 1965-66 and 1966-67 are shown in table 13. This table makes it possible to compare changes in absence rates in grades one through nine under the Education Act in target schools with changes that have occurred in control schools where no Education Act services were received.

Inspection of table 13 reveals the following facts:

1. In all grades in the primary target schools, except grade two, absence rates increased from the five base years to 1965-66 to 1966-67.
2. In the junior high grades 7, 8, and 9, the absence rate pattern is PT>ST>C. Absence is increasing each year not only in PT but also in ST and C secondary schools. The rate of increase of absence in secondary grades is greater than in elementary grades in primary target schools.
3. Comparison of absence rates in elementary grades among PT, ST, and C are much more similar than for secondary grades. Nevertheless, PT absence in grades 1 to 6 is both greater than and increasing more than either ST or C.
4. Viewed from grade to grade, absence rates in all schools tend to decrease from grade 1 through grade 3, to rise again in grades 4 through 6, and to jump sharply at grade 7 and to be somewhat higher at grade 9. Primary target rates, especially at the secondary level are highest. For 1966-67 the control school rates tend to be somewhat higher than those of the secondary target schools.

Discussion

There are many factors that affect the rate of pupil absence from school. As one looks for causes that might have had a widespread effect in the schools included in this study, two conditions stand out. First, the weather, particularly during the winter months, was comparatively mild. This fact, plus the

Table 13. Percents of Average Daily Absence by Grade for Primary Target, Secondary Target, and Control Schools for Five-Year Baseline Period, 1965-66, and 1966-67.

	Primary Target			Secondary Target			Control		
Grade	5-Year Baseline	1965-66	1966-67	5-Year Baseline	1965-66	1966-67	5-Year Baseline	1965-66	1966-67
12	7.0%	9.2%	10.1%	----	----	----	----	----	----
11	9.7	12.6	13.4	----	----	----	----	----	----
10	12.3	12.8	14.4	----	----	----	----	----	----
9	13.9	15.6	17.5	11.5%	12.2%	12.7%	8.5%	10.2%	12.3%
8	14.5	15.9	16.7	11.2	12.0	11.8	9.5	10.4	13.9
7	13.4	13.7	14.9	10.0	10.3	11.0	8.7	10.2	10.8
6	7.3	7.3	8.3	6.6	6.3	6.8	7.0	7.1	7.3
5	7.1	7.8	8.3	6.7	6.3	6.5	6.9	6.8	7.5
4	7.0	7.2	7.4	6.9	6.2	6.9	7.0	7.7	6.5
3	6.2	6.9	7.3	7.7	6.4	7.2	6.6	5.9	6.5
2	8.1	8.0	8.2	8.7	10.8	7.3	7.4	8.1	7.1
1	10.1	10.2	11.2	9.9	10.5	8.8	9.8	9.5	9.5
Unweighted Average Grades 1-6	7.6	7.9	8.5	7.8	7.8	7.3	7.5	7.5	7.4
Grades 7-9	13.9	15.1	16.4	10.9	11.5	11.8	8.9	10.3	12.3

absence of serious epidemics, might account for the stability of absence rates in control schools and the decrease in the secondary target schools. The concurrent increase at the primary target level is difficult to explain. The largest jumps in rate of absence occurred in grades 1 and 6; in each case the rate for 1966-67 was one per cent higher than for the preceding year and for the five-year baseline period.

The increase is also fairly evenly divided over all of the schools in the primary target area. It is possible that this highly transient area includes an increasingly larger percentage of families who value education less, for whom the slightest reason is adequate to justify the pupil's staying home.

There is, however, another factor that might be pertinent, particularly at the sixth grade level. It should be noted that even in secondary target and control schools the sixth grade rates increased slightly for the most recent year. Thus, it may be generalized that older pupils were absent from school more in 1966-67 than in the preceding year. This fact is probably traceable in part to the local civil rights disturbances which took place in the areas served by the schools included in this study. A number of expressions of concern were received by the schools indicating that parents had kept pupils home out of fear for their safety.

The essential question to be answered in this study, however, was whether evidence would indicate lower absence rates in the target schools. On the basis of the evidence gathered, it must be concluded that no such effects have occurred. Whether continued ESEA services might eventually bring about an increase in pupil and parent motivation and improvement in physical health, which will cause the absence rates to decrease, can only be a matter of conjecture.

CHAPTER 8
PROMOTION RATES

Description

Promotion rate is typically expressed as the quotient resulting from the ratio of the number of pupils advanced to the end-of-year membership. It is, in other words, the percentage of pupils finishing a school year who are advanced to the next grade. In the Cincinnati Public Schools a pupil is either advanced or retained for a full year's work in the elementary grades. Promotion at the secondary level, on the other hand, is by subject, with the grade placement designation determined by the number of subjects passed or credits earned. For example, it is possible for a pupil in the tenth grade to be taking some subjects at the ninth grade level.

The use of promotion rates as an index of effectiveness of a program is based upon several assumptions concerning their reliability and validity. Obviously, there must be some consistency of standards from school to school, grade to grade, and year to year if meaningful comparisons are to be made. If promotion criteria are either more or less rigid one year than they were the preceding year, the comparison must take this into account. It is also necessary to assume that promotion rates are valid indicators; i.e., that the standards for promotion generally correspond to the objectives of the program being evaluated and that teacher judgments about pupils' readiness for promotion are reasonably accurate.

Method of Analysis

This report continues the analysis of promotion rates in the 1965-66 Title I program evaluation report. Last year's report established baseline data in the form of composite promotion rates for the five-year period from 1960-61 through 1964-65, as well as the rates for the 1965-66 school year. These rates were determined by grade for primary target, secondary target, and control schools.

In this report the 1966-67 promotion rates for the same school groupings are compared by grade to those of the preceding years. Last year's rates are kept separate because they represent a partial year of ESEA services. The 1966-67 rates, of course, are representative of the first full year of Title I.

It should be noted that one secondary target elementary school which qualified for ESEA services in 1965-66 but not in 1966-67 has not been included in the data for the most recent year. The percentages of promotion in this school, however, vary only slightly from the total percentages for secondary target elementary schools. In addition, one of last year's control junior high schools is no longer operating. A new junior high school with a similar population has been included in the figures for grades 7, 8, and 9.

Results

Table 14 showing the percentage of pupils advanced at each grade level in primary target, secondary target, and control schools, makes it possible to compare promotion rates for the most recent year with earlier data. In grades K through 9 changes in promotion rates under the Education Act in target schools may be compared with changes that have occurred in control schools, where no Education Act services were received. The average promotion rates for grades K through 9 are shown at the bottom of table 14. This kind of comparison makes it clear that there has been a general tendency toward higher promotion in all elementary and junior high schools represented. In grades 1 through 9, only two of the 1966-67 percentages in table 14 (grade 1, PT, and grade 9, ST) are lower than the corresponding rates for the baseline years. All others show an increase ranging from .2 to 3.6 per cent.

The increase in promotion rates for 1966-67 as compared to the baseline period is greatest for the control schools, averaging 1.7 per cent per grade. Primary target schools show an average increase of 1.4 per cent per grade, and secondary target schools, 1.2 per cent. Thus, there appears to be little or no connection between the increased promotion and Education Act services.

Table 14. Percentages of Pupils Promoted in Primary Target, Secondary Target, and Control Schools by Grade and Year.

Grade	Primary Target			Secondary Target			Control		
Year:	61-65 (Baseline)	65-66	66-67	61-65 (Baseline)	65-66	66-67	61-65 (Baseline)	65-66	66-67
12	91.8%*	89.0%	86.5%	----	----	----	----	----	----
11	91.5	85.8	86.5	----	----	----	----	----	----
10	87.9	90.4	85.8	----	----	----	----	----	----
9	88.8	95.7	92.0	95.9%	88.8%	94.3%	94.5%	95.7%	95.5%
8	88.6	92.8	91.9	91.3	88.2	94.4	91.6	94.8	92.4
7	88.9	90.7	92.3	91.0	87.5	93.1	91.2	95.1	94.8
6	98.6	98.5	98.9	98.4	98.3	99.4	99.8	100.0	100.0
5	96.6	97.4	97.3	95.0	93.4	95.5	98.6	99.6	99.6
4	94.3	94.8	96.6	95.0	95.4	96.2	96.2	99.0	98.6
3	94.4	93.8	97.2	95.4	96.3	97.3	96.1	97.7	98.7
2	93.5	94.2	93.8	92.9	95.0	94.4	95.0	96.3	97.5
1	81.7	80.2	79.7	78.7	86.6	80.5	84.0	89.8	86.8
K	99.8	99.9	99.5	99.8	99.8	99.8	99.9	100.0	100.0
Unweighted Average K-9	92.5	93.8	93.9	93.3	92.9	94.5	94.7	96.8	96.4

*Composite for five-year period.

Compared to the 1965-66 rates, the percentages for the most recent year represent an average increase for the secondary target schools of 1.6 per cent per grade. This may be viewed as a recovery from the low promotion percentages of the preceding year. The changes in primary target and control schools are negligible (+.1 per cent, primary target and -.4 per cent, control).

For the one primary target senior high school no comparison with a control group is possible. It will be noted, however, that there has been a general decline in the promotion rates of this school.

Viewed from grade to grade, the promotion figures tend to follow the pattern noted last year, rising from a low at first grade level through each of the five succeeding elementary grades. Interestingly, however, the rates for grade 3 rose more sharply than any other in 1966-67 to distort this perennial pattern somewhat. The junior high school pattern also is less consistent than in previous years, with rather small differences evident from one junior high school grade to another.

The promotion rates for 1966-67 remain highest in the control schools. For eight of the ten grades where comparisons can be made, secondary target rates are higher than those of primary target schools. Thus, it may be generalized that the promotion rates for the first full year of Education Act services follow rather closely the pattern suggested by the basis for selection of the three categories of schools; i.e., $C>ST>PT$.

Discussion

The general increase in promotion rates in the elementary and junior high schools included in this study is subject to various interpretations. Basically, one might contend either that more learning is taking place, so that fewer pupils are failing to reach the minimum standard for advancement, or that the standards are becoming less rigid from year to year. Some assistance in interpreting the increase is provided by the comparison of achievement test scores reported in an earlier chapter. An examination of scores at the lowest percentile points suggests that these pupils are indeed learning more; grade scores at the tenth percentile show general increases over last year.

Within the range of these two interpretations, however, there are several other questions that need to be answered. First, if promotion standards are relatively constant and pupils are learning more, why is this so? The larger increases in the promotion rates of control schools suggest that this phenomenon is unrelated to Education Act services. And yet, recognizing that all three levels of schools included in this study have substantial percentages of underprivileged children, one might wonder whether the educational profession is becoming more knowledgeable about the underprivileged child and more understanding of his needs. If increased understanding of the special needs of the disadvantaged is a causative factor in increased promotion rates, certainly the Education Act may be viewed globally as enhancing this effect. This hypothesis is negated, however, by the general rise in city-wide promotion percentages, particularly at the elementary level.

It may be, in fact, that teachers and administrators are lowering their standards for promotion, even without being aware that this is the case. This phenomenon seems more likely in target schools. A study by Jacobs[1] produced evidence of a dual standard of promotion in basin and suburban schools. Even though all personnel involved attempt to be objective in the evaluation of readiness for promotion, the judgment is inevitably somewhat subjective, so that fluctuation of standards might unwittingly be introduced.

Such issues cannot be definitely resolved at this time. The basic question to which the study was addressed has been answered. There is no significantly greater increase in promotion rates in target schools than in control schools.

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[1] Jacobs, James N., "A Critical Evaluation and Study of Nonpromotion in the Cincinnati Public Elementary Schools." Journal of Instructional Research and Program Development, Volume 2, May, 1967, pp. 113-133.

The total implications of this fact must be derived from the broad overview of all the findings of program and project evaluation. It is entirely possible that several years of continuous assessment will be needed to measure the effect of concentrated services on the deprived youngsters in target schools.

CHAPTER 9
DROP-OUTS

Description

Definitions of the term drop-out are varied, but perhaps the most typical includes any pupil who leaves school before graduation or completion of a program of studies without transferring to another full-time school program. Although this definition is typical, it is not universally accepted. Some would argue that this concept of the term drop-out includes many pupils who eventually attain their educational goal. They may do this through a less structured program than that of the regular day school, or they may leave school with the idea of terminating education but return later to finish.

Despite this disagreement, the above definition has been adopted for the report. Data on the number of pupils withdrawn from the Cincinnati Public Schools and the reason for their withdrawal are available from reports of census changes. Reasons for withdrawal that seem to warrant classifying a pupil as a drop-out under the above definition include the following: government services, pregnancy, illness, work permits, home permits, psychological exclusion, superintendent's expulsion, and age beyond compulsory attendance. Also included is an ambiguous miscellaneous category; most often the disposition of these cases was pending at the time of withdrawal. At the secondary level, however, it is likely that the majority of them discontinued their education.

It should be noted that the drop-out statistics in this report should not be compared with those of other school systems without a careful examination of the basis for classification. A considerable amount of ambiguity remains. Standardizing the method of data reporting does not prevent differences in individual judgments in the classification of cases and other related issues.

The thoroughness with which pupils are followed after leaving school is another issue that suggests extreme caution in comparing drop-out rates. The period from June to September has been excluded completely from this report because of the impossibility of obtaining accurate information for this period. Students expected at a given school who do not appear when school opens often continue full-time education elsewhere. Although an effort is made to trace each of these pupils who is of compulsory school age, there are no collected data reflecting how many are drop-outs.

The term drop-out rate refers to the ratio of the number of drop-outs from the period of September to June to the total number of pupils for whom the school is accountable (drop-outs plus end-of-year membership). This total accountability figure includes all pupils enrolled in a school in a given year except those who have been withdrawn as deceased, or for whom it is reasonable to assume that full-time education was continued. Graduating seniors are counted in the twelfth grade end-of-year membership.

The rationale for using drop-out rates to assess the effectiveness of the Education Act program is based on the fact that an important goal of the Title I effort is to make the learning experience more meaningful in the life pattern of the pupil. Unless this effort has been successful enough to motivate the pupil to stay in school, he can hardly be said to gain appreciably from the services offered.

Method of Analysis

Because the greatest effort under Title I has been expended in primary target schools the first signs of improvement of the drop-out situation would be expected here. Although fewer funds have been used locally at the secondary level than at the elementary, there is some possibility that a year and four months of intensified effort might have led to a noticeable decrease in the drop-out rate.

This report continues the analysis of drop-out rates in the report of last year. Changes in the percentages of drop-outs that have taken place in 1965-66 and 1966-67 are compared among the primary target, secondary target, and control schools. The basis for determining these changes is the baseline established in last year's report for the years 1963-64 and 1964-65, representing the period prior to the advent of the Education Act.

For each of the three time periods, drop-out ratios at the secondary level were computed for each grade. Because the percentages of pupils leaving school at the elementary level is too small to be meaningful, these data were not compiled for this year's report.

A second comparison is made of the drop-out percentages of grades 7 through 12 in the target schools with those in the non-target schools throughout the Cincinnati school district. The comparison is particularly critical for grades 10 through 12 since the secondary target and control school groupings contain no senior high school to compare with the one in the primary target group. Drop-out rates are typically highest in grades 10 and 11.

Results

To permit comparison of a change in drop-out rates in target and control schools, table 15 shows the percentages by grade and type of school for each of the last four years. Each year is recorded separately because of the diversity in the two years that may be considered the baseline period (1963-64 and 1964-65). The 1965-66 school year represents a partial period of Title I services and 1966-67, the first full year of services. Each of the junior and senior high school grades is included, although the rates at grade seven are too small to have much meaning.

Examination of table 15 indicates that drop-out rates in the primary target schools have generally increased within the past school year. This is true in comparison both to the baseline period and to 1965-66. Increases occurred at all grade levels except seventh, but were greatest in grades ten and eleven.

Table 15. Percents of Pupils Dropping Out of Primary Target, Secondary Target, and Control Schools (September-June) by Grade and Year.

Grade	Primary Target 63-64	 64-65	 65-66	 66-67	Secondary Target 63-64	 64-65	 65-66	 66-67	Control 63-64	 64-65	 65-66	 66-67
	Baseline Years				Baseline Years				Baseline Years			
12	6.2%	9.1%	6.2%	7.8%	----	----	----	----	----	----	----	----
11	11.0	13.0	13.7	17.1	----	----	----	----	----	----	----	----
10	12.6	16.6	10.7	14.5	----	----	----	----	----	----	----	----
9	9.1	8.9	10.4	11.1	6.8%	6.8%	7.3%	7.5%	5.6%	6.0%	7.1%	8.1%
8	5.0	5.7	4.9	5.2	3.5	2.9	3.9	4.0	5.8	5.0	3.5	2.9
7	2.0	1.7	2.0	1.2	1.8	1.7	1.2	1.8	1.5	2.0	0.8	1.0
Unweighted Average 7-9	5.4		5.8	5.8	3.9		4.1	4.4	4.3		3.8	4.0

By comparison, the primary target rates in grades 7-9 increased less from 1965-66 to 1966-67 than either the secondary target or control percentages. Viewed in relation to the two-year baseline period, though, the primary and secondary target rates show about equal increases while the control rates have decreased.

It is in grades ten and eleven, however, that the highest drop-out rates regularly occur. Unfortunately, the control school grouping includes no senior high school. For this reason, table 16 allows a comparison of the target school drop-out rates viewed collectively with those of all non-target, secondary level public schools in Cincinnati. Table 16 indicates that the target school drop-out rates are higher at every grade level than those of non-target schools. This difference averages 3.5 per cent per grade in 1966-67. Interestingly, the highest drop-out percentage in the primary target school has been at the eleventh grade level for the past two years. In non-target schools, on the other hand, grade ten has regularly shown the highest rate.

As noted earlier, the drop-out rates for target schools were higher in 1966-67 than in either the baseline years or in 1965-66. A look at table 16 shows that this is also generally true of the non-target school rates. A comparison of the increases that have occurred over the average of the two baseline years shows a mean increase of 1.1 per cent for target schools and of 1.2 per cent for non-target. Thus, it appears that per cent of increase in target and non-target schools over the baseline years is about the same.

An inspection of the stated reasons for withdrawal gives an indication of why this is so. Of the nine reasons for withdrawal that are considered drop-out categories, four were found to include 86.3 per cent of the total numer of drop-outs in grades 7 through 12, over the four years covered by this report. The categories Work Certificate and Miscellaneous contain rather large numbers at both the junior and senior high school level, while Over-Age

Table 16. Percents of Pupils Dropping Out of Target Schools Compared with Non-Target Schools (September-June) by Grade and Year.

Grade	TARGET SCHOOLS 63-64 Baseline Years	 64-65	 65-66	 66-67	NON-TARGET SCHOOLS 63-64 Baseline Years	 64-65	 65-66	 66-67
12	6.2%	9.1%	6.2%	7.8%	3.8%	4.6%	4.6%	4.6%
11	11.0	13.0	13.7	17.1	6.7	7.0	7.7	9.4
10	12.6	16.6	10.7	14.5	7.9	8.6	8.9	11.4
9	7.6	7.7	8.5	8.9	3.9	4.0	5.1	5.4
8	4.1	4.1	4.3	4.5	2.4	2.0	2.3	1.7
7	1.9	1.7	1.6	1.5	0.6	0.6	0.6	0.9
UNWEIGHTED AVERAGE 7-12	8.0		7.5	9.1	4.4		4.9	5.6

and Pregnancy include a substantial number at the senior high school level but few in grades 7 through 9. Table 17 shows the average number of pupils withdrawn from grades 7 through 12 for the two baseline years and the per cent of increase in each of the two succeeding years by reason and type of school. Percentages have not been figured for cells that do not exceed 10 cases in at least one of the four years.

Table 17. Mean Number of Pupils Withdrawn from Grades 7 through 12 in Two Baseline Years and Per Cent of Increase in 1965-66 and 1966-67, by Reason and Type of School.

	Work Certificate	Over-Age	Pregnancy	Miscellaneous
Primary Target				
Baseline Average N	84	38.5	56.5	69.5
% Increase 65-66	-1.2%	-9.1%	-2.7%	13.7%
% Increase 66-67	21.4	35.1	16.8	15.1
Secondary Target				
Baseline Average N	59.5	2	34.5	59
% Increase 65-66	4.2%	---	-1.4%	6.8%
% Increase 66-67	14.3	---	-21.7	49.2
Control				
Baseline Average N	17	0	2	19
% Increase 65-66	47.1%	---	---	-15.8%
% Increase 66-67	135.3	---	---	21.1
Other				
Baseline Average N	249	141.5	67.5	366
% Increase 65-66	25.7%	52.7%	-11.1%	15.3%
% Increase 66-67	63.8	37.1	25.9	48.9

In interpreting this table, several facts must be kept in mind. First, the senior high school grades, where most drop-outs occur, are represented only in the primary target and other groupings. There is one primary target senior high school and seven in the other grouping. Secondly, the two years in the baseline period have been taken together, although the pattern has typically been a steady increase from 1963-64 on.

The categories Work Certificate and Miscellaneous tend both to include the largest number of students and to show the greatest increases. In primary target schools, however, it is the Over-Age category that has increased most over the baseline. The increases for schools in the other grouping are greater on a percentage basis for each of these four critical categories of reasons for withdrawal.

Discussion

From the results reported in the preceding section, two primary facts are obvious:

1. There has been a general increase in the number of drop-outs in the Cincinnati schools over the past four years. This increase has continued in the 1966-67 school year even in the target schools, which have received ESEA services.
2. The increase in drop-out rate in the target schools has been slightly less, possibly as a result of Title I services, than that in non-target schools.

Some may be distressed by the fact that target school drop-out rates have continued to increase, thus remaining somewhat larger than those of other schools. Exploration of the reasons behind pupils leaving school seems to be very important in this regard. It is recognized that the stated reason for withdrawal seldom tells the whole story. Behind each pupil who leaves school under the heading Work Certificate or Over-Age or even with work certificate pending, to be classified as a Miscellaneous drop-out, there is generally a history of extended personal frustration. Sometimes this is a perennial inability to succeed in school or a lack of interest in the program offered by the regular day school. Sometimes it is a history of continuing economic indigence, perhaps including parental pressure to find a means of self-support. In any case, the problems that accompany cultural deprivation are too numerous and complex in their causation to be remedied in the course of a year or two.

Of some hope is the large number of youths of school age and just beyond who are currently engaged in continuing education programs and other areas of skill training and self improvement. In many cases these young people have found a means of self support while they are continuing their education on a part-time basis.

Of considerable interest in this regard is the effect of counselors who have been assigned under Title I to three high schools in Cincinnati as job coordinators. The role of these professionals will be discussed in more detail in the evaluation report of the Secondary Remediation and Enrichment project. It seems appropriate to note here, however, that these personnel have been assigned not only to the one primary target senior high school but also to two other high schools that qualify as secondary target schools but have not been included in this program evaluation report because they receive no other Title I services. The duties of these counselors consist of working with pupils that have been identified as potential drop-outs, encouraging them to remain in school, or helping them to make other appropriate plans for continuing their education or training and becoming gainfully employed.

The secondary project report will provide evidence of the effect that these counselors have had as far as drop-out rates are concerned. It may be noted briefly, though, that in schools with a job coordinator, the number of pupils withdrawn with work certificates has increased dramatically over the baseline period, while in the other five senior high schools this number has remained relatively stable. At the same time, those pupils for whom the category heading Over-Age and Miscellaneous suggest withdrawal without an immediate means of self-support, the increases in schools with and without job placement coordinators have been similar. This information provides considerable hope that the larger number of pupils who are withdrawing, especially from schools served under Title I, are withdrawing with purpose.

They are moving toward a goal rather than merely fleeing from an undesirable situation. Coupled with the evidence that target school drop-out rates are increasing more slowly than those in other schools, the fact yields a rather hopeful composite picture of the effects of ESEA services in this area.

CHAPTER 10
PSYCHOLOGICAL REFERRALS

Description

Each year, several thousand pupils are referred by classroom teachers and others to receive service from the Division of Psychological Services. Most referrals originate from the child's teacher since she is likely to be the first to recognize child needs. Each referral contains a variety of information about the child which not only provides background information to the school psychologist but also determines the priority of service. No restriction has ever been placed on the number of referrals that may be made by a school. Of all referrals made in the course of a year, about seven out of ten are actually seen by a school psychologist--this being a function of the limited staff available to give service.

During the past year, records have been kept not only on numbers of referrals made by school but also upon the type of referrals made. It is hypothesized that the number and type of referrals characteristic of PT and ST schools over a period of time may reflect the extent of school related and other problems of pupils. Further, it is hypothesized that the ESEA program, with its many services designed to prevent such problems, will lead to a reduction of referrals.

Methods of Analysis

The data currently available do permit comparison of total referrals made by PT and ST schools for 1965-66 and 1966-67. These data were expressed as percents of referrals made in all Cincinnati Public Schools. These proportions for the two years were tested for significance of difference using the chi square statistic.

The type of referrals made by PT and ST schools for 1966-67 only was reflected by percents in each category. Control schools are not included in the analysis because they are few and likely to reflect unreliable statistics.

Results

A summary of psychological referrals is shown below.

Table 18. Numbers and Percents of Psychological Referrals Made by Grade Level, Year, and School Group.

Level School Group	1965-66 N (%)	1966-67 N (%)	Per Cent Difference '67-'66
Elementary Schools			
PT (12 schools)	1057 (19.28%)	1016 (16.81%)	-2.47%*
ST (17 schools)	1316 (24.01%)	1420 (23.50%)	- .51
Secondary Schools			
PT (4 schools)	124 (2.26%)	182 (3.01%)	+ .75
ST (4 schools)	105 (1.91%)	131 (2.16%)	+ .25
Total Referrals Made:			
Target Schools	2602 (47.46%)	2749 (45.48%)	-1.98*
Non-Target Schools	2879 (52.54%)	3292 (54.52%)	+1.98*
City-Wide	5481	6041	

*Statistically significant at 5% level.

The results show that of the 5481 referrals made city-wide in 1965-66, 47.46% originated in target (PT and ST) schools; the remaining coming from non-target schools. In 1966-67, 45.48% (of 6041) came from target schools--a decline of 1.98%. The two way contingency table formed by year (66 vs. 67) and school group (target vs. non-target) produced a significant chi square value of 4.52. Thus, the decline of 1.98% in target schools is not likely to be a matter of chance.

Inspection of the upper portion of table 18 shows that the decline in target schools occurred in elementary PT and ST schools but to the greatest and most significant extent in the PT elementary schools.

Table 19 breaks down the total number of referrals made in 1967 by type. It is noted that the majority of referrals were classified as "advice on educational plans." The least number of referrals was made on "family and community problems." In succeeding years, the types of referral categories will be analyzed in a manner similar to that shown in table 19. It is hoped that the Education Act program in the future will reduce the number of behavior problems shown in referral types two and three in table 19.

Table 19. Percents of Types of Psychological Referrals Made in 1966-67 by Level and School Group.

Type of Referral	Elementary Schools		Secondary Schools	
	PT	ST	PT	ST
1. Advice on Educational Plans	43.3%	37.9%	19.2%	33.5%
2. Personality-Behavior Problems	13.8	12.2	28.0	33.6
3. Academic and Behavior Problem	20.4	22.4	20.9	16.8
4. Family and Community Problem	.2	.1	-	-
5. Other	22.3	27.4	31.9	16.1
Total Number of Referrals	1016	1420	182	131

Discussion

The use of psychological referrals as a criterion of the educational and mental health of the target area pupils has some validity yet has two serious limitations. First, both the number and types of referrals made depend largely on the school staff. It was for this reason that control schools were not included in the summaries because there were so few of them that the results would be too unreliable. With the larger number of schools in the PT and ST areas, the reliability should be fairly high from one year to the next. Second, making referrals may be a relative matter. Problems of children may be reduced in seriousness yet the number of referrals may remain the same simply because the service is available.

The Education Act may serve to identify problems which heretofore had been unseen thus actually causing an increase rather than decrease in referrals.

In the comparison of number of referrals made from 1966 to 1967, there was a significant decrease in target schools which occurred mainly in PT elementary schools. Whether or not this decrease can be attributed to the Education Act is a moot question but taken along with other information, it may reflect Education Act impact.

CHAPTER 11
COST OF VANDALISM

Description

The cost of vandalism in primary and secondary target schools was investigated to determine if a noticeable difference among schools exists and to provide baseline data for future study.

It is reasoned that the ESEA program will result in better attitudes toward school, and that less destruction of property at the schools receiving the most services will be noticed. It is recognized that vandalism costs of a school are not necessarily perpetrated by pupils attending the school. In elementary schools particularly, acts of vandalism may or may not be executed by children attending the school. Frequently, older children are responsible. Thus, the costs due to vandalism may reflect the behavior of persons in the whole area rather than simply pupils attending the school. It should be realized that many schools in the target area provide the only playground space available to children living in that area. Use of the school playground before and after school hours and on weekends is commonplace. Such conditions make it difficult to distinguish damage due to normal use from malicious destruction.

Methods of Analysis

Annual vandalism costs for all PT and ST schools were secured from the Department of Business Administration of the Cincinnati Public Schools. Glass breakage figures also were obtained. These figures were indicated on a monthly basis, so the statistics for the ten month school year (September-June) were used. According to cost statistics, the glass unit cost in 1966 was $5.89. The total units per ten month period per school were multiplied by $5.89 to obtain a total glass breakage cost per PT and ST school. This cost was combined with the cost of vandalism to obtain the total cost for the 1965-66 school year. The small number of control schools prohibited analysis because the reliability of cost indices would be too low.

As the glass breakage figures for 1966-67 were only available through December at the time of this writing, these figures were averaged, projected over ten months, and combined with the vandalism costs to obtain the total cost for the 1966-67 school year. We have chosen to estimate costs for the school year, rather than a calendar year (vandalism is higher in summer months than school months) because the school year costs are more likely to be the result of persons living in that school's district. Further, better records can be kept during the school year. Cost records are only as valid as the reports submitted by principals. All acts of vandalism are not reported by the principal--such costs being borne from school funds. The average cost for 1965-66 and 1966-67 for primary and secondary target schools (elementary and secondary level schools were grouped together in each case) was obtained by dividing the total cost by the number of schools in the category. The t ratio was computed by finding average costs for each PT school for the two year period, and averaging costs for each ST school for the two year period, and comparing the difference between the means for these two groups with the standard error of a difference between the means.

Results

Summary of costs due to vandalism are shown in table 20. Inspection of table 20 shows wide variation in vandalism costs from school to school. The average cost per primary target school from 1966 to 1967 is, however, very similar; $600 and $587 for 1966 and 1967, respectively. This difference is not significant. Similarly, average costs in ST schools are about the same; $710 and $740 for 1966 and 1967, respectively. Comparison of average costs between PT and ST schools shows them to be higher in ST schools. The differences, however, are not statistically different, this being a function of the wide variation within sets of schools.

As a matter of interest and control, figure 2 shows the number of lites (glass panes) broken in PT, ST, and all Cincinnati schools by month for the year 1965-66.

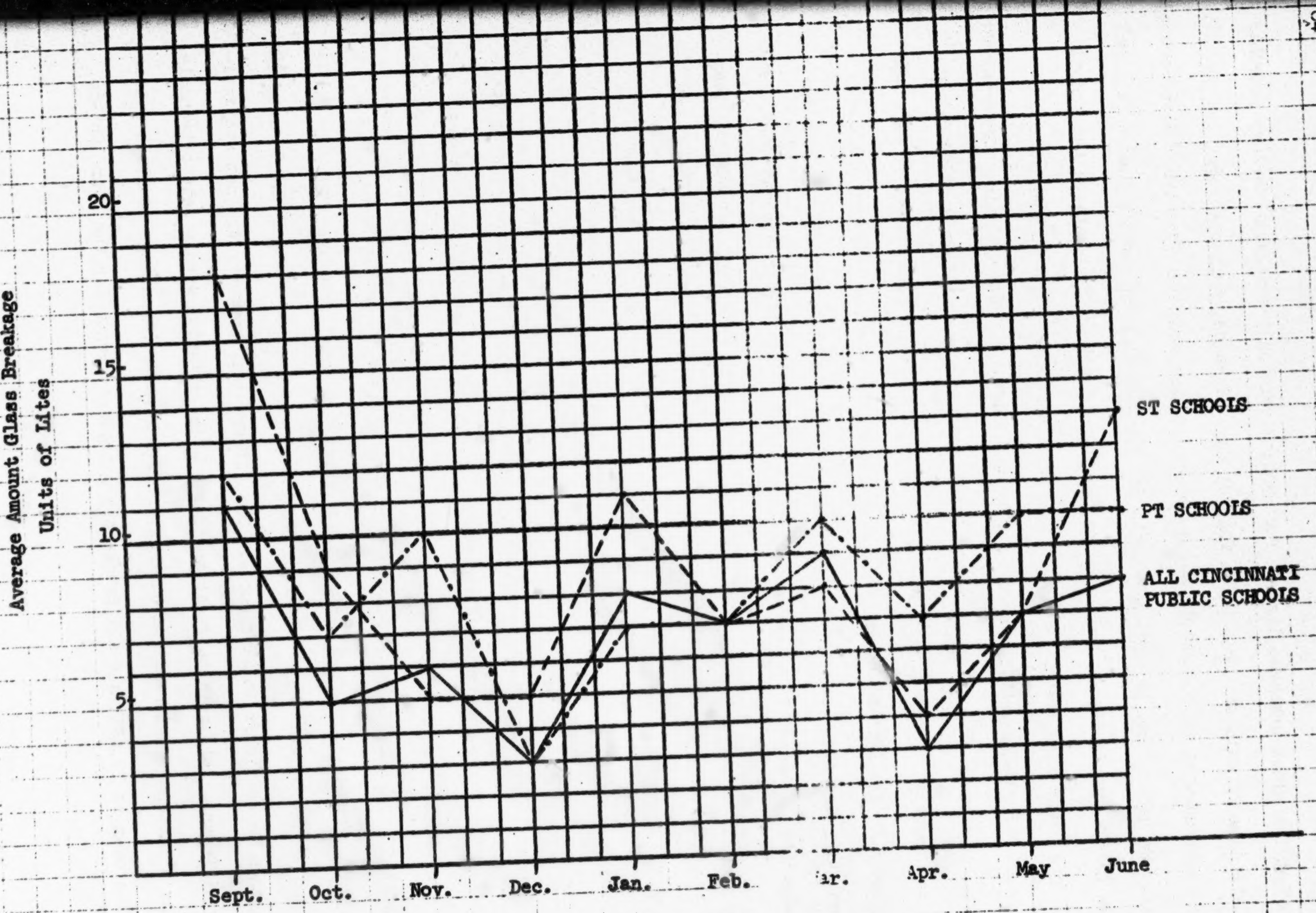

Figure 2. Average Amount of Glass Breakage by Types of Schools and Month, Cincinnati Public Schools, 1965-66.

Table 20. Cost of Vandalism and Glass Breakage in Primary and Secondary Target Schools from September through June of 1965-66 and 1966-67.

	Primary Target			Secondary Target	
School	Cost '66-'67	Cost '66-'67	School	Cost '66-'67	Cost '66-'67
1.*	$ 376	$ 883	1.*	$ 390	$ 664
2.*	1416	294	2.	304	468
3.	638	780	3.	182	1084
4.	784	309	4.	753	1428
5.	618	585	5.	709	744
6.*	556	816	6.	1737	767
7.	715	833	7.	667	492
8.	88	221	8.	507	1119
9.	649	635	9.*	928	1245
10.*	247	611	10.	1575	1796
11.	1358	1113	11.*	1401	870
12.	253	133	12.	171	0
13.	153	536	13.	218	473
14.	283	401	14.	1291	663
15.	860	660	15.	1475	1114
			16.*	464	550
			17.	292	422
			18.	586	477
			19.	398	276
			20.	212	293
			21.	656	613
Average Cost	$ 600	$ 587		$ 710	$ 740
Difference '67-'66	$-13			$+30	

*Secondary Schools.

The facts shown in figure 2 and their implications are well known by the Business Department. Glass breakage appears cyclical and highly consistent among PT, ST, and all Cincinnati schools.

Discussion

While no significant difference was noted in costs of vandalism and glass breakage from 1966 to 1967 in either PT or ST schools, these data do represent a good benchmark for future comparison.

Generally, it appears that schools in both PT and ST categories which have grounds near or adjacent to housing have less glass breakage and vandalism. It is reasoned that malicious damage is less likely in these areas without being detected. During the recent civil disturbances in the city the most destruction of property (public and private) occurred in the areas of the secondary target schools. In these areas in the city there is a great mobile population and perhaps more general dissatisfaction. Thus, the findings relative to average cost of vandalism and glass breakage per PT and ST school does correlate with the observed conditions in the city.

CHAPTER 12
SUMMARY AND GENERAL FINDINGS OF PART I

Summary

Part I has attempted to assess the impact of the Education Act program in target schools on a gross basis. The interest and analysis has been on change and status in target schools. The general hypothesis tested was PT>ST>C which reflects the order of ESEA program service intensity. It was recognized that school-wide change due to ESEA was not likely to occur because potency and extent of treatments per pupil, or per teacher are very low for the school as a whole. In spite of this, the strategy was applied if for no other reason than to verify baseline data.

Several criterion measures were applied to test the general hypothesis. Analysis was made of each measure both in terms of change from 1966 to 1967 and status in 1967. While the reliability and validity of some of the criteria are not established, it is the general picture which is most important.

General Findings

1. Teacher Survey. In general, teacher survey results did not confirm the general hypothesis but there are some important exceptions. Overall changes in primary target school teacher evaluations were either equal to or less than ST or C while 1967 ratings generally favored PT over ST. Typically, teacher survey factors which measure concrete, visible objects or services were rated higher by PT teachers than ST or C. This pattern is consistent with what was actually done in PT schools; e.g., the presence of remedial and resource teachers, special education classes, resource centers, after-school clubs and enrichment activities, Saturday morning classes. Evaluative ratings of pupil and parent characteristics did not change and remained low in target schools.

2. Administrator Survey. The general finding was confirmation of the general hypothesis: PT>ST, both in terms of change and status. There is a tendency for administrators to evaluate survey items higher than teachers although there is high correlation. Evaluative ratings of pupil-parent characteristics, while higher than in 1966, are a full unit under those given by other administrators in non-target schools.

3. Student Survey. Practically no difference was noted in student response to the survey from 1966 to 1967 in PT, ST, or C. The 1967 responses, however, continue to confirm the general hypothesis especially for elementary pupils.

In comparison to suburban pupils, target school pupils tend to like school more. Suburban pupils, however, read more, and have higher aspiration than target pupils. They also worry more about school work and have higher parent interest than target children. Self-image and ego strength appear about the same between target and suburban children.

Girls seem better adjusted to school than boys and generally seem to value education more than boys. As pupils progress in school, they become increasingly disenchanted through the junior high grades with a striking change in the shift from elementary to secondary school.

4. Parent Survey. A general decline in affirmative response was noted for PT, ST, and C. PT decline, however, was larger than either ST or C. In terms of 1967 response only, PT, ST, and C responses were similar. The larger decline among PT parents probably is a function of the relatively high percent of affirmative responses made in 1966.

Target and suburban parent response differences generally confirmed those factors thought of as distinguishing these two groups. Thus, suburban parents have higher aspiration levels for their children, are more active in school, and are optimistic of their children's school work. Target parents want to know more about the school but apparently do not involve themselves.

5. Pupil Academic Achievement. Based on an abbreviated testing program in 1967 conducted in grades 2, 4, 5, 6, 7, and 10, the general finding was C>ST>PT, which is no different from last year's results.

Valid comparisons between 1966 and 1967 achievement could only be made in grades 4, 6, and 7. Of the 102 comparisons made at three quartile points for the three grades and all subtests in PT and ST, 29 showed positive change, 37 negative change, and 36 no change. Positive and negative change was about even in PT and ST schools. Control schools, however, showed more positive change in the fourth grade, equal gains or losses in the sixth grade, and more losses than gains in the seventh grade. The picture with respect to target school increase over 1966 in comparison to control is inconsistent. There is a tendency toward slight decrease in pupil achievement in the target schools.

6. Pupil Attendance. Average daily absence in primary target schools has increased from base years to 1965-66 and 1966-67. In secondary grades, the absence pattern is PT>ST>C--this being true in 1966 as well as 1967. In the elementary grades absence is not only greater but also increasing faster in PT compared to ST or C.

7. Promotion Rates. There was a trend for promotion rates to increase in all grades and about the same in PT (1.2%), ST (1.4%), and C (1.7%) in comparison to baseline data. With respect to 1967 promotion rate, the general picture was C>ST>PT.

8. Drop-outs. Rate of drop-out has increased in target and non-target secondary schools in Cincinnati. Drop-out rates remain higher in target than in non-target schools. Comparing drop-out rates from 1966 to 1967 shows generally PT ST C.

9. Psychological Referrals. The number of psychological referrals in PT and ST schools for 1965-66 and 1966-67 was compared with those from non-target schools. A significant decrease in referrals from target schools was noted; this occurring mainly in PT elementary schools.

10. Cost of Vandalism. These costs were determined for the school years 1965-66 and 1966-67 for PT and ST schools. Both PT and ST showed similar average costs for the two years. ST school costs due to vandalism were higher than PT but not significantly so.

PART II

ANALYSIS OF PUPIL SAMPLE

General Description

The reader is referred to the introductory chapter to understand the definition of the sample and how it was selected. Suffice it to say here, the sample consists of some pupils who have received more intensive ESEA services and who, therefore, stand the best chance of showing improvement as compared to various other comparison groups. We define five groups comprising the sample:

HSPT - high service pupils in primary target schools
LSPT - low service pupils in primary target schools
HSST - high service pupils in secondary target schools
LSST - low service pupils in secondary target schools
NSC - no service controls

The general hypothesis is: HSPT>HSST>LSPT>LSST>NSC either with respect to change or status. The hypothesized order corresponds, we believe, with ESEA treatment intensity.

While pupils in the five sample groups were matched with respect to grade and sex, it is obvious that there are no real counterparts to the HSPT group. By definition, these pupils are in greatest need of further help, thus they form an "unmatchable" group. The remaining four groups are simply the closest matches with HSPT there were possible. This fact mitigates against unbiased comparisons and is the most serious deterrent to valid generalizations of the effects of ESEA. The sample was drawn from grades 2, 4, 6, 7, and 10.

Several criterion measurements were made of the five groups constituting the sample. Some of these measures are the same as those reported in Part I. In most cases, measures are available for sample groups both for 1966 and 1967 thus permitting comparisons of both status and change.

CHAPTER 13
PUPIL ACADEMIC ACHIEVEMENT

Description

Pupil academic achievement has been gauged by standardized achievement tests and by end of year marks given in the basic academic subjects. Description of the achievement tests was given in chapter 6 and will not be repeated here. End of year marks in Cincinnati Public Schools consist of the letter grades A, B, C, D, F. In spite of the fact that teacher marks are known to have limited reliability and validity they are, nevertheless, the major index upon which promotion is based and represent a teacher's judgment of pupil achievement. Marks were obtained directly from school records at the end of the year and were converted to numerical ratings where four points were equivalent to an A, three points to B, two points to C, one point to D, and zero points for F.

Methods of Analysis

Standardized achievement test grade scores and marks in the basic academic subjects were obtained for both 1966 and 1967 for all five groups in the sample and for the five grade levels studied; i.e., grades 2, 4, 6, 7, and 10. Obviously, test data and marks for 1966 were obtained from the previous year's grade level.

Achievement Tests. It was pointed out that the HSPT groups at each grade level were unmatchable especially in terms of achievement. Any method of analysis which did not account for lower initial achievement would be unacceptable since it would bias the comparison in favor of the initially higher group. The objective, of course, is to measure achievement from 1966 to 1967 and not before 1966 which is pre-ESEA. We settled on a co-variance type of analysis which corrected 1967 criterion data on the basis of its correlation with the same measure in 1966.

The basic problem in analysis was to compare the adjusted 1967 achievement test data among HSPT, LSPT, HSST, LSST, or NSC per grade and per criterion measure--of which there were 28 test measures. All comparisons did not involve all five sample groups. An elaborate multiple co-variance analysis of criterion data was programmed on computer by Dr. Richard Johnson who served as statistical consultant to the Division of Program Development. Detailed description of the program analysis will not be made here* except to point up some of the important outputs. Five co-variables were identified--the "pretest" measure and four variables identifying sample group membership. For each variable, means and standard deviations are produced as well as zero order correlations of the co-variables with the criterion variable. The regression coefficients and standard errors are also computed for each co-variable as well as the multiple correlation with the criterion. Finally, t values are computed between each co-variable and LSPT, the latter being an arbitrarily selected reference point. Thus, for example, the adjusted criterion means for HSPT vs. LSPT are tested for significance by the t statistic as well as other groups; e.g., HSST vs. LSPT and LSST vs. LSPT.

The strategy was to use the above program on those variables which, upon inspection of means, seemed to hold the most promise of significant difference. If significance of difference was not observed, the remaining variables would not be analyzed.

Pupil Marks. Pupil end of year marks were averaged for each grade and subject resulting in grade point averages (GPA). A computer program was written which generated means, N's and the standard error of means for each subject, grade level, and group. Inspection of the 1966 and 1967 GPA's indicated that elaborate analysis was not warranted. Differences were tested for significance through the t statistic.

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*Persons interested in the mathematical details or the computer program itself may obtain further information by writing the Division of Program Development, Cincinnati Public Schools.

Results

Standardized Test Achievement. Table 21 summarizes the average grade scores by sample group, grade, and subtest. All means, pretest (1966) and post-test (1967) are based only on those pupils for whom both scores were available. Thus, we are assured that the same pupils are represented in pre- and post-test. Comparisons involving less than twenty pupils are not reported because of their unreliability.

It is noted that in grades 4 and 6, comparative achievement could be analyzed across all five sample groups while in grades 2 and 7 only three groups (HSPT, LSPT, and NSC) could be compared. Only HSPT and LSPT could be compared in grade 10. Missing groups are explained by the fact that such groups were non-existent as defined.

Before results of analysis are reported, several observations based on table 21 should be made as follows:

1. HSPT pretest grade scores are consistently lower than those of the remaining four groups. This fact attests to the selective nature of the groups obtaining intensive ESEA services. The achievement of sample pupils, particularly HSPT, is below that of the average of the schools they attend (see table 10).

2. All but a few differences reported reflect a significant gain in achievement from 1966 to 1967. Word study skills in grade 2 and arithmetic application in grade 6 for HSPT are examples of the exceptions showing no significant gain.

3. The subtest which best "identifies" the HSPT group is language. Language pretest means for HSPT are lower in relation to other groups as compared to other subtests. HSPT pupils were selected much on the basis of poor language development.

4. The pattern of subtest means parallels that found for the schools as a whole. Thus, spelling and arithmetic computation generally are relatively higher than other subtests while language scores are usually lowest.

5. Gains made by HSPT are generally lower than those made by LSPT. Similarly, gains made by HSST are generally lower than LSST. Gains made by NSC seem to be randomly higher, equal to, or lower than the other four sample means.

The results of the regression analysis described briefly earlier supported what one might infer from inspection of the means and gains in table 21. After

Table 21. Average Stanford Achievement Pretest and Post-test Grade Scores and Differences from 1966 to 1967 for the PUPIL SAMPLE by Grade, Subtest, and Sample Group.

Grade Test Date Administered Subtest	H S P T				L S P T				H S S T				L S S T				N S C			
	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain	N	Pre	Post	Gain
GRADE 2																				
Stanford Primary I																				
Pretest: Oct. '66																				
Post-test: May '67																				
Word Meaning	98	1.33	1.89	.56	86	1.38	2.07	.69									106	1.41	1.92	.51
Paragraph Meaning	97	1.45	1.89	.44	86	1.56	2.08	.52									106	1.50	1.98	.48
Spelling	49	1.25	2.10	.85	50	1.34	2.19	.85												
Word Study Skills	23	1.47	1.50	.03	20	1.43	1.20	-.23												
Language	97	1.43	1.91	.48	89	1.52	2.11	.59									105	1.56	2.02	.46
Arith. Computation	96	1.43	1.93	.50	91	1.59	2.13	.54									107	1.59	2.05	.46
GRADE 4																				
Stanford Intermediate I																				
Pretest: May '66																				
Post-test: May '67																				
Word Meaning	63	2.55	3.12	.57	56	2.61	3.34	.73	63	2.71	3.31	.60	54	2.70	3.50	.80	69	2.62	3.27	.65
Paragraph Meaning	65	2.26	2.85	.59	57	2.49	3.01	.52	63	2.45	3.14	.69	56	2.73	3.39	.66	69	2.59	3.08	.49
Arith. Computation	64	2.86	3.53	.67	55	2.92	3.68	.76	65	2.89	3.34	.45	54	3.12	4.09	.97	69	3.12	3.87	.75
Arith. Concepts	65	2.49	3.24	.75	55	2.69	3.45	.76	64	2.44	3.04	.60	53	3.08	3.83	.75	68	2.70	3.27	.57
GRADE 6																				
Stanford Intermediate II																				
Pretest: Feb. '66																				
Post-test: Jan. '67																				
Word Meaning	43	3.33	3.88	.55	49	4.03	4.81	.78	65	4.16	4.42	.26	62	4.91	5.43	.52	89	4.65	5.13	.48
Paragraph Meaning	43	3.37	3.96	.59	49	3.76	4.71	.95	65	3.98	4.61	.63	61	4.92	5.55	.63	86	4.51	5.15	.64
Spelling	36	3.98	5.28	1.30	47	4.63	5.12	.49	63	4.77	5.11	.34	60	5.63	5.95	.32	87	4.81	5.28	.47
Language	37	3.14	3.47	.33	45	3.61	4.12	.51	64	3.70	4.20	.50	60	4.66	5.43	.77	87	4.07	4.90	.83
Arith. Computation	42	4.06	4.56	.50	41	4.13	4.56	.43	64	4.20	4.84	.64	59	4.59	5.31	.72	87	4.69	5.29	.60
Arith. Concepts	41	4.19	4.31	.12	47	4.28	4.86	.58	63	4.21	4.52	.31	57	5.00	5.76	.76	88	4.95	5.42	.47
Arith. Application	42	4.11	4.14	.03	44	4.38	4.68	.30	62	4.22	4.47	.25	59	4.98	5.45	.47	88	4.58	5.39	.81
GRADE 7																				
Stanford Advanced																				
Pretest: May '66																				
Post-test: May '67																				
Paragraph Meaning	56	4.20	4.92	.72	56	4.41	5.00	.59									58	4.57	5.41	.84
Spelling	53	4.86	5.59	.73	56	5.17	6.24	1.07									57	4.89	5.85	.96
Language	56	3.68	4.29	.61	57	4.22	5.16	.94									56	4.27	4.69	.42
Arith. Computation	58	4.52	4.89	.37	57	4.95	5.45	.50									61	4.90	5.38	.48
Arith. Concepts	53	4.37	5.35	.98	52	4.62	6.17	1.55									61	4.50	6.22	1.72
GRADE 10																				
Stanford Advanced																				
Pretest: May '66																				
Post-test: May '67																				
Paragraph Meaning	58	5.63	6.01	.38	55	7.42	8.20	.78												
Spelling	56	6.47	6.83	.36	52	8.80	9.41	.61												
Language	55	4.86	5.02	.16	53	6.51	7.21	.70												
Arith. Computation	41	5.85	6.26	.41	43	7.51	7.91	.40												
Arith. Concepts	39	5.88	6.70	.82	42	8.27	8.94	.67												

appropriate adjustment of post-test means in relation to pretest means, the general finding was no significant difference among groups. This generalization is based on separate analyses of spelling, paragraph meaning, and arithmetic computation in all grades represented. Further analyses did not seem warranted since the remaining subtest gains, by inspection, did not appear different from those analyzed. In spite of the lack of significance of difference among the five sample groups, one cannot overlook the trend, small as it might be, for LSPT>HSPT. This is reflected in the fact that of the 27 comparisons of gains (all subtests and grades), 19 were in favor of LSPT, and only 7 favored HSPT; one being equal. All post-test means of LSPT, except 2, were higher than HSPT. Much the same situation exists in comparing HSST and LSST. Of the 11 comparisons of gains, LSST made higher gains in 8 while HSST was higher in two and one showed equal gain.

Of interest is the fact that most pretest-post-test correlations were in .5 to .6 range while the regression of post-test on pretest was usually in .6 to .7 range. The latter observation verifies previous investigation showing that target pupils typically achieve the equivalent of 6 to 7 months of growth per 10 month school year.

End of Year Marks. Table 22 summarizes the average end of year marks given to the sample groups in the basic subjects. Average marks given to these groups at all grade levels generally are in the 1.00 to 2.00 range indicating a preponderance of D's or below average academic performance. As with achievement test results, the previous year's performance of HSPT is generally lower than the LSPT and that of HSST is generally lower than LSST.

There are 46 differences reported in grade point averages in table 22. Of the 46, 28 show decrease from 1966 to 1967. In contrast to test achievement reported as grade equivalents where growth is expected, marks do not reflect growth from year to year, per se. Thus, we may ask which and how

Table 22. Average End of Year Marks in 1966 and 1967 and Differences for the PUPIL SAMPLE by Grade, Subject, and Sample Group.

Grade	H S P T				L S P T				H S S T				L S S T				N S C			
Subject	N	Pre 1966	Post 1967	Diff.	N	Pre 1966	Post 1967	Diff.	N	Pre 1966	Post 1967	Diff.	N	Pre 1966	Post 1967	Diff.	N	Pre 1966	Post 1967	Diff.
GRADE 2																				
Reading	89	1.19	1.28	+.09	86	1.81	1.78	-.03									108	1.78	1.69	-.09
Language	77	1.64	1.47	-.17	77	1.86	1.86	0									104	1.86	1.86	0
Arithmetic	89	1.29	1.40	+.11	87	1.80	1.84	+.04									108	1.77	1.70	-.07
GRADE 4																				
Reading	55	1.44	1.47	+.03	55	1.62	1.62	0	67	1.49	1.52	+.03	58	1.69	1.57	-.12	69	1.77	1.48	-.29*
English	15	1.40	1.60	+.20	16	1.88	1.63	-.25												
Arithmetic	55	1.78	1.40	-.38*	55	1.73	1.13	-.60*	67	1.46	1.46	0	58	1.83	1.64	-.19	69	1.77	1.67	-.10
GRADE 6																				
Reading	27	1.48	1.30	-.18	38	2.16	1.95	-.21	64	1.64	1.63	-.01	62	2.52	2.42	-.10	82	2.28	2.23	-.05
English	19	1.84	.89	-.95*	31	2.00	1.81	-.19	64	1.88	1.59	-.29	62	2.42	2.02	-.40*	82	1.89	2.23	+.34*
Arithmetic	27	1.26	1.26	0	38	1.58	1.37	-.21	64	1.69	1.36	-.33	62	2.16	1.69	-.47*	82	1.89	1.98	+.09
GRADE 7																				
English	63	1.59	2.10	+.51*	58	1.95	1.91	-.04									67	1.73	1.70	-.03
Mathematics	63	1.48	1.65	+.17	58	2.00	1.81	-.19									67	1.78	1.42	-.36*
GRADE 10																				
English	67	1.85	2.06	+.21	60	2.18	1.78	-.40*												
Mathematics	53	1.74	1.55	-.19	49	1.94	1.67	-.27												

*Difference is significant at 5% level.

many of the 46 differences actually represent significant increase or decrease. Based on the standard error of the mean statistic, it was found that 10 of the 46 differences were significant; 8 of which were decreases and 2 of which were increases. One of two increases was in HSPT grade 7, English, while the other was in NSC grade 6, Language Arts.

In spite of the general lack of significant difference in marks from one year to the next there is a tendency for HSPT differences to show relatively higher gain than LSPT. Of the 13 difference comparisons, HSPT>LSPT, relatively speaking, in 11. In contrast, LSPT>HSPT, in 10 of the 13 comparisons of 1967 means. Thus, LSPT show higher achievement in 1967 while HSPT generally show more gain.

Discussion

The data presented in this chapter show no evidence that pupil academic achievement has been increased significantly as a result of ESEA services. The standardized achievement tests reveal a slight trend favoring the non-ESEA groups while teacher marks show a slight trend favoring the high service ESEA groups. The general picture, however, is no significant difference.

CHAPTER 14

PUPIL ATTITUDES AND SELF-IMAGE

Description

This chapter continues comparison of the five sample groups. Four instruments were used to measure pupil attitudes and self-image: Student Survey; What I Am Like; Attitudes Toward Self and School; and the House-Tree-Person Test.

Although these instruments may be viewed as having construct or theoretical validity, none has established predictive validity. As highly experimental measuring devices, they should not be considered generally reliable for individual pupil diagnosis. Rather, the purpose toward which these instruments are directed in this study is group comparison. All instruments in this section were given by school psychologists in small group situations.

Student Survey. The student survey was described in chapter 4 and will not be repeated here. For this analysis we obtained both a total score and the per cents of affirmative responses to each item. Since the results obtained from the suburban sample were reported in chapter 4, they also will not be reported.

What I Am Like. What I Am Like is an instrument developed by the Division of Psychological Services and the Division of Program Development to measure self-concept by having pupils rate themselves on a five point, bi-polar adjective scale. This technique is based on Osgood's concept of the semantic differential.

The instrument consists of three subtests of ten items each. The first subtest, What I Look Like, consists of adjectives characterizing physical attributes. The second, What I Am, attempts to measure self-image from a psychological point of view. The third, What I Am Like When I am With My Friends, concerns social attributes.

For each item on What I Am Like a score of five represents the positive pole of the trait, and a score of one the negative pole. A rating of three may be viewed as neutral. In a few cases it was difficult to assign positive and negative polarity. On the instrument itself the position of positive and negative poles was randomized to avoid a psychological set in rating the items.

A total score was derived on each pupil in the sample groups as well as the suburban sample. In addition, each of the three subtests was scored. The instrument was given in grades 4, 6, 7, and 10.

Attitudes Toward Self and School. The Attitudes Toward Self and School or "Faces" test consists of 18 items, each having two circles drawn to represent a smiling or frowning face. The pupil is asked to blacken the nose of the picture that describes how he feels when the examiner reads a particular statement. For example, "How do you feel about how well you read?" and "How do you feel when you get your report card and take it home?" were two of the 18 items. It was assumed that if a pupil marked the smiling face this indicated a positive attitude toward whatever was being measured. On the other hand, if he marked the frowning face, this was assumed to mean that his feelings were more negative.

Although the items were selected on the basis of previous research in motivation and self-concept, no validity or reliability evidence is available for the "Faces" instrument. A total score was derived for the instrument and the responses to individual items were examined for information about self-concept and school motivation. The instrument was given only in grade 2.

House-Tree-Person. The House-Tree-Person test is a projective technique in which pupils draw these three commonly experienced objects. The technique assumes that children (and others) express their drives, needs and interpersonal experiences in the drawings they make. A review of several studies relating self-concept to children's drawings revealed 18 possible hypotheses, eight of which seemed to have the support of experimental evidence and clinical cross-validation by more than one author. Pupil drawings were scored for the following eight factors.

1. Size of the first person drawn. Research indicates that a person's self evaluation affects the way he draws the human figure and that largest figures are drawn by children with more positive self evaluation.
2. Degree of discrepancy of first person from the vertical position. Hammer concludes that the self-image can be projected in the person drawing. A toppling figure reflects the subject's concern about, and desire to surrender to, environmental forces.
3. Detailing in drawings. Hammer describes this as an index of feelings of adequacy. He states that changes in a child's self perceptions can be noted through changes in various details from one drawing to another.
4. Detailing of face in the first person drawn. This is an extension of number 3. It is important in that self-concept is focused in the head and the face of the person drawing.
5. Position of drawn wholes on the pages. Children who center their work on the paper tend to be more self-directed and secure.
6. Degrading of drawings. This occurs when the child feels his experiences have beaten him and left him emotionally crippled.
7. Sex of the person drawn first. Sex identification is related to self-concept. Most people draw their own sex first.
8. Distortion of drawings. Drawings are the product of experience. The effects of experience will modify the detailing, proportion and perspective produced.

A scoring system was developed to measure the degree of presence of each factor. Each factor was scored on a three-point scale making the maximum score 24; i.e., eight factors times three points each. Since this scoring system is unique, no norms are available.

Methods of Analysis

Analysis focused on whether or not significant differences were evident among the five sample groups. Data is available for these instruments only for 1967 since they were taken anonymously in 1966. Thus, for total scores and other continuous data, analysis of variance was applied. Dichotomous responses, usually to specific items, were analyzed with chi square.

Results

Student Survey. The per cents of affirmative responses to each survey item and sample group of children are summarized in table 23. Mean total

Table 23. Percents of Affirmative Response for May 1967 Student Survey Items for the PUPIL SAMPLE Groups by Grade.

ITEM	Grade 2			Grade 4					Grade 6					Grade 7			Grade 10	
	HSPT	LSPT	NSC	HSPT	LSPT	HSST	LSST	NSC	HSPT	LSPT	HSST	LSST	NSC	HSPT	LSPT	NSC	HSPT	LSPT
N =	110	81	71	66	60	63	57	67	93	88	60	57	87	59	65	63	67	52
1. Do you like school?	89%	95%	77%	88%	85%	90%	93%	85%	86%	83%	83%	91%	89%	78%	86%	79%	82%	88%
2. Do you need more help from your teacher?	57	53	48	70	67	71	52	50	67	65	67	61	37	52	66	52	61	62
3. Do you read books from a library?	90	89	96	89	85	92	95	85	85	86	93	98	81	51	65	67	54	56
4. Do you like your school?	85	88	80	82	72	83	79	81	81	68	86	84	76	74	77	81	87	83
5. Do you enjoy field trips?	93	90	81	95	92	95	95	91	97	97	95	96	94	97	97	87	90	96
6. Do field trips help you in schoolwork?	56	67	38	73	75	78	63	45	78	77	73	86	70	86	78	59	73	79
7. Do you get along better outside of school than in school?	70	68	69	44	54	51	55	54	57	48	49	54	51	63	59	63	60	58
8. Would you like to spend more time at school?	61	68	39	55	58	66	56	39	35	44	38	25	29	19	29	21	7	6
9. Are you satisfied with the grades on your report card?	74	69	67	63	43	65	54	45	42	38	52	54	42	49	45	30	21	23
10. Do you worry about your schoolwork?	72	68	62	77	88	69	70	57	84	78	76	89	72	78	80	76	84	81
11. Are you doing better in your schoolwork this year?	87	89	91	83	72	81	69	73	72	73	78	65	76	68	68	49	60	33
12. Do you look forward to coming to school each morning?	73	81	79	86	90	87	93	75	84	82	83	79	74	68	77	60	76	52
13. Do you talk about school at home?	63	71	62	79	83	85	88	70	74	80	83	91	86	81	83	79	75	87
14. Has someone from home ever talked to your teachers?	77	74	57	77	75	85	86	77	89	84	78	86	72	51	65	51	51	62
15. Do you get praise at home for good schoolwork?	81	82	70	77	83	70	86	67	80	80	73	75	70	71	74	57	60	60
16. Do you think you will graduate from high school?	80	81	83	77	80	83	84	79	90	86	93	89	86	91	92	84	96	94
17. Do you hope to go to college?	86	89	94	94	92	97	91	79	91	91	83	89	79	85	89	70	54	83
18. Do you talk at home about what kind of job or career you will have after you are out of school?	76	73	74	77	90	87	88	72	80	89	90	84	78	84	84	79.	91	87
19. Do you read more than is required by your schoolwork?	72	79	80	52	68	65	63	40	52	57	60	61	54	56	45	30	34	38
20. Do you think your teachers usually expect too much of you?	45	46	53	46	56	21	30	31	46	39	22	32	30	45	28	48	52	56
21. Do your teachers think you are doing well in your schoolwork?	86	89	75	73	65	66	74	63	55	57	75	60	66	59	58	40	48	44
22. Do your parents think you are doing well in your schoolwork?	85	89	89	83	75	75	77	55	66	72	68	80	67	69	66	43	46	47
23. Do you think you could do well in any school subject if you studied hard enough?	91	96	90	95	95	98	95	91	96	95	97	96	93	93	97	95	94	90
24. Are your lowest grades usually your teacher's fault?	41	28	15	11	20	11	5	12	14	22	10	14	9	19	9	11	24	13
25. Do you think you could do well in any kind of job you choose?	88	91	72	73	80	74	75	64	78	81	63	60	76	67	69	73	82	83
MEAN TOTAL SCORES	15.19	17.52	14.13	15.71	14.90	15.94	15.75	13.92	14.67	15.25	15.41	15.42	14.55	13.37	14.45	12.29	12.41	12.69

scores for each group also are reported. Total score was obtained only from 20 of the 25 items. Items 2, 9, 10, 23, and 25 were not included in total score because the "right" response could be interpreted as either yes or no depending on your viewpoint. Of the 20 items scored, "yes" was the "right" response on all except items 6, 20, and 24 where "no" was the "right" response.

Comparison of HSPT and LSPT shows little difference in item response except for a few items in grade 10. HSPT tenth graders believe they are doing better in their school work and look forward to coming to school each morning more than LSPT while more of the latter hope to go to college. Comparison of HSST and LSST shows practically no difference either, except some indication that HSST pupils need more help from their teachers. Several of the NSC item responses were different from the other groups but usually such differences can be explained by the similarity of NSC with suburban responses reported in tables 7 and 8.

Analysis of total score showed a significant difference at grade 2 with LSPT HSPT=NSC. No significant difference was observed at any other grade level.

In view of the great number of comparisons made, the few that appear significant may indeed be a matter of chance. In general, there are no discernable differences among sample groups on the student survey.

What I Am Like. A summary of subtest and total score means for this instrument is shown in table 24. The N's are not shown because they are similar to those shown in table 21. A maximum subtest score of 50 is possible, this being obtained by the pupil rating himself on the positive pole of each of the ten pairs of bi-polar adjectives. With three subtests, the total possible score on the instrument is 150.

By merely glancing across rows, we observe little difference in means in grades 4 and 6. Standard errors of subtest means range from .58 to 1.19 while those of total test score range from 1.46 to 2.36. Thus, it is apparent that no significant difference exists in any means in grades 4 and 6.

Table 24. Subtest and Total Score Means of What I Am Like by Grade, PUPIL SAMPLE, and Suburban Groups.

Grade Subtest	HSPT	LSPT	HSST	LSST	NSC	Suburban
GRADE 4						
Physical	38.38	38.76	39.69	38.66	38.13	39.34
Psychological	38.93	38.69	37.92	39.06	39.67	39.09
Social	37.11	38.14	39.77	37.38	38.03	37.58
Total	114.41	115.59	115.75	114.89	115.83	116.01
GRADE 6						
Physical	39.12	38.20	39.15	38.53	38.42	39.33
Psychological	38.83	38.71	38.45	38.17	38.66	38.93
Social	37.31	37.62	37.35	38.28	37.44	38.54
Total	115.17	114.53	115.09	115.04	114.52	116.80
GRADE 7						
Physical	37.65	39.14			37.16	39.19
Psychological	36.53	37.59			36.66	38.08
Social	36.07	36.77			36.82	37.60
Total	110.25	113.50			110.64	114.87
GRADE 10					*	
Physical	40.15	37.83				
Psychological	39.18	37.06				
Social	38.07	37.96				
Total	117.39	112.85				

*Measures for tenth grade suburban pupils were not obtained.

Total score means in grades 7 and 10 do show larger differences among groups but they are not consistent. In grade 7, LSPT>HSPT while in grade 10 the reverse is true. In grade 7, the differences do not quite reach significance while in grade 10 the difference was significant.

Comparison of the total score suburban means to sample group means shows that at each grade level tested, 4, 6, and 7, the suburban means are higher than those of sample groups. The differences are small and not statistically significant but they are consistently higher. Thus, there is a hint, at least, that self-concept of suburban children may be higher than that of target children as measured by this instrument.

In general, analysis of What I Am Like shows no sample group difference of any consequence to support the hypothesis that pupil self-concept will get better with ESEA services.

Attitudes Toward Self and School. This instrument, called the "Faces" test was given only in grade 2 as a substitute measure for What I Am Like which was not appropriate for second graders. A summary of these test results is shown in table 25.

Table 25. Percents of Children Marking "Smiling" Faces for SAMPLE Groups and Suburban Children in Grade Two.

Items	HSPT (N=109)	LSPT (N=92)	NSC (N=99)	Suburban (N=306)
1. How do you feel about growing up and getting older?	82	80	72	79
2. How do you feel when it's time to get up and go to school?	58	64	46	54
3. How do you feel when you have a chance to learn something?	94	96	94	67
4. How do you feel when you think about going home after school each day?	71	82	67	81
5. How do you feel when your teacher tells you to get out your books and begin work?	57	67	62	58
6. How do you feel when you think about how fast you learn?	91	92	90	95
7. How do you feel when your teacher says she is going to give a test?	66	76	58	54
8. How do you feel about how healthy and strong you are?	95	96	99	98
9. How do you feel about how well you read?	91	96	93	94
10. How do you feel about the way the neighbors treat you?	64	66	51	71
11. How do you feel about how you look and the kind of face you have?	79	83	86	86
12. How do you feel about the way other children treat you?	48	46	41	68
13. How do you feel when you get your report card and take it home?	80	80	73	78
14. How do you feel about how much you know?	93	97	95	95
15. How do you feel about how well you do arithmetic?	83	88	87	85
16. How do you feel when you think about next year in school?	59	66	43	66
17. How do you feel about the way your teacher treats you?	69	68	62	81
18. How do you feel when your teacher says it's your turn to read out loud?	84	89	87	85
TOTAL SCORE AVERAGE*	13.98	14.30	13.39	13.96

*Mean number of smiling faces marked.

Consistent with results of previous self-concept measures we find no significant differences in total score either among sample groups or suburban children. The four means reported range from 13.39 to 14.30. Inspection of item statistics in table 25 also show no significant difference in general but a few items show differentiation. Items 3 and 7 show that significantly fewer suburban children "smile" when they "have a chance to learn something" or when "the teacher says she is going to give a test." This finding is consistent with those of the student survey reported in chapter 4 which showed more anxiety among suburban children with respect to school work.

Suburban children, however, "smile" more frequently than sample children on items 12 (the way other children treat you) and item 17 (the way the teacher treats you). Response to these two items; i.e., 12 and 17, last year by a random sample of PT and ST children showed results which parallel the responses of this suburban group. Thus, the difference is not between suburban and target school children, but rather between the sample groups and others in the same schools as well as suburban schools. This finding may be of great importance in understanding why these children achieve poorly in relation to their peers.

House-Tree-Person. The H-T-P was given to all sample groups as well as the suburban sample. The results are summarized in table 26. Grade differences in mean H-T-P score are apparent showing older children scoring higher. Ability to draw apparently has some influence on scoring although attempts were made to minimize this influence. Within grades, however, there should be no group comparison bias. Those who studied the results of H-T-P given last year* to random samples of PT and ST pupils will recognize that the means shown in table 26 are higher but that grade differences are lower. We changed scoring procedures somewhat to reduce the effects of age on score.

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*Journal of Instructional Research and Program Development, Volume 2, Number 1, October, 1966, Cincinnati Public Schools, pg. 62.

Table 26. Mean House-Tree-Person Scores for the PUPIL SAMPLE and Suburban Groups by Grade*.

Grade	HSPT	LSPT	HSST	LSST	NSC	Suburban
2	17.22	17.26	-	-	17.26	18.00
4	18.08	18.63	18.28	18.13	18.02	19.45
6	18.65	19.59	19.38	19.65	19.22	20.04
7	19.31	19.39	-	-	19.20	20.12
10	19.62	19.96	-	-	-	-

*N's are similar to those shown in table 23.

Inspection of group means reveals a pattern similar to that of What I Am Like. Analysis showed no significant difference among sample groups at any grade level. We observe again, however, that suburban means are consistently higher at all grade levels measured. The differences are not great but their significance must be measured by their frequency of occurrance and consistency with other instruments.

Discussion

This chapter has attempted to compare pupil sample groups and the suburban sample on measures thought to reflect attitudes and self-concept. The complexity of subtlety of what is being measured must be borne in mind in interpreting results. Statistical significance alone is an insufficient criterion. One must look at pattern and consistency.

Using these criteria there is no evidence of consequence to suggest that ESEA treatment intensity is bettering the attitudes or the self-concept of children. There is sufficient consistency to believe that suburban children have a better self-concept.

If one is prone to accept increasing similarity of target to suburban children performance and attitude as a criterion of the success of ESEA, some caution or reflection is appropriate. Are we seeking more anxiety and lower school valence among target children to correspond to suburban children?

Dependency upon the school environment to meet the needs of children must be judged in relation to the child's total environment. That which the home cannot provide must be provided by the school if the school's major goal of academic achievement is to be reached.

CHAPTER 15
PROMOTION, ATTENDANCE AND DROP-OUT

Description

The reader is referred to chapters 8, 9, and 10 for description of these criteria. These measures are reported in the same way although they were obtained from pupil cumulative records rather than from school reports upon which previous data were based.

Methods of Analysis

All the data in this chapter were outputs from a computer program which, in addition to computing means, also computed their standard errors. In comparing more than one pair of means, the largest mean difference was tested and if the test was significant the next largest difference was tested, etc. Suburban statistics were not collected for these criteria.

Results

Promotion. Summary of promotion rates and differences from 1966 to 1967 by grade and sample group are shown in table 27.

Standard errors of the means ranged from .00 to .04. The largest difference in the table is shown in grade 2 HSPT where promotion was 99% in 1966 while only 89% in 1967. This represents a significant reduction in promotion. The remaining three significant differences are also decreases; grades 7 and 10 in LSPT and grade 7 for NSC. All 1966, 1967 differences for HSPT are decreases. In fact, of 18 differences reported, 13 are decreases, 2 show no difference, and only 3 are increases. Further interpretation is not productive. The fact is that neither HSPT>LSPT nor is HSST>LSST. ESEA services have not increased promotion rates.

Attendance. The criterion statistic is expressed as days of average daily absence rather than attendance. Table 28 summarizes the attendance data. The pattern, similar to promotion, is generally undesirable. Of the 18 differences reported, only 2 show a decrease in average daily absence while 16 show increases.

Table 27. Promotion Rates for PUPIL SAMPLE by Grade and Year.

	H	S	P	T	L	S	P	T	H	S	S	T	L	S	S	T		N	S	C
Grade	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.
2	91	.99	.89	- .10*	86	.99	.98	- .01									107	1.00	.99	- .01
4	57	.95	.93	- .02	53	.98	1.00	+ .02	66	.92	.95	+ .03	58	.97	.95	- .02	70	1.00	.96	- .04
6	30	1.00	.97	- .03	42	1.00	1.00	0	64	1.00	.98	- .02	62	.98	1.00	+ .02	81	1.00	1.00	0
7	64	1.00	.98	- .02	59	1.00	.93	- .07*									66	1.00	.94	- .06*
10	67	.99	.94	- .05	59	1.00	.92	- .08*												

*Significant difference at 5% level.

Table 28. Attendance Rates for PUPIL SAMPLE by Grade and Year (Days Absent).

	H	S	P	T	L	S	P	T	H	S	S	T	L	S	S	T		N	S	C
Grade	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.	N	Pre	Post	Diff.
2	90	15.49	15.78	+ .29	85	15.66	16.68	+1.02									108	16.97	15.38	-1.59
4	52	11.96	12.10	+ .14	55	11.78	11.96	+ .18	67	13.09	11.72	-1.37	58	13.22	15.55	+2.33	69	11.25	12.04	+ .79
6	29	12.45	15.17	+ 2.72	39	16.21	15.36	- .85	64	10.83	11.70	+ .87	62	10.81	11.31	+ .50	82	11.04	11.20	+ .16
7	65	14.95	26.52	+11.57*	60	10.33	18.23	+7.90*									67	12.28	20.09	+7.81*
10	67	19.22	22.31	+ 3.09	60	13.42	17.23	+3.81												

*Significant difference at 5% level.

The three statistically significant increases in absence are all at the seventh grade level in HSPT, LSPT, and NSC. High absence seems characteristic of the junior high school years.

The pattern reveals increased absence at all grade levels and rejects the hypothesis that ESEA services will reduce absence.

Drop-out. The only grade in which drop-out is meaningful is grade 10 because in other grades of the sample, children are too young to leave school. Of the 71 HSPT tenth graders, 4 dropped out. Of the 63 LSPT tenth graders, 3 dropped out. With such small numbers and such a small difference, little can be said one way or the other regarding the effects of ESEA on drop-outs.

Discussion

The data presented in this chapter continue the string of evidence revealing a lack of support of the hypothesis that ESEA will better the performance of target children. As compared to 1966, the trend is toward lower promotion rates and higher average daily absence. This finding was true of all five sample groups, not just the high service groups. These characteristics are, of course, typical of low achieving, disadvantaged children.

CHAPTER 16
A CLOSER LOOK AT HIGH SERVICE PRIMARY TARGET CHILDREN

The results of the three preceding chapters add up to one general finding--no significant difference among sample groups. This finding is contrary to the hypothesis and our general notion of the beneficial effects of the program services, particularly remedial reading. Of course, the strategy of the SAMPLE comparisons rests on the definition of "high service." If, indeed, our operational definition of what constitutes the best services is incorrect, then we would not expect differences among the five sample groups and our general hypothesis would have no rational basis.

In an effort to test out the validity of "high service" definition we singled out the HSPT group and subdivided them into four ESEA intensity groups. Obviously, all had "high service" as defined, but we were interested in further subdivision to see if higher intensity of treatment produced higher criterion measures. Unfortunately, the number of cases per grade in HSPT and per intensity group was too small so we combined the two higher and the two lower groups for comparison. Such comparison was possible only in grades 2, 4, and 6. In grades 7 and 10 there were no pupils who met the definition of the lower group. In other words, all HSPT pupils in grades 7 and 10 had at least 24 hours of remediation which was the cut-off point between high and low intensity groups.

Comparison of high and low intensity groups in grades 2, 4, and 6 led to inconsistent results. In grade 2, all five achievement subtest gains were higher for the high intensity group but the largest difference (in the reading subtests) was only 2 months. In grade 4, three subtest gain comparisons favored the low intensity group and one (arithmetic concepts) favored the high intensity group. In grade 6, six of seven subtest gains were higher for the lower intensity group.

In a similar vein, all other criterion measures showed inconsistent results thus leading to some serious questions relative to the appropriateness and/or effectiveness of the treatments. It is possible, however, that some unknown bias is operating to cloud the effects.

CHAPTER 17
CONCLUDING STATEMENTS

In viewing the findings of this report, the general pattern is that of no significant difference. From the inception of the Education Act, educators nationally have given consistent warnings not to expect changes to occur within the first few years of operation. No one could predict how much or what kind of change would occur or over what period of time. It simply seemed to be a fair bet, that on the basis of previous experience in educating disadvantaged children, that significant and far-reaching effects simply would not take place within a few years. In spite of our acceptance of this notion, one cannot help to feel some uneasiness over the lack of some effects small as they may be. Reaction to the findings of this evaluation report cannot be one of despair. Instead, it must serve as a stimulant to educators to continue attempts to find out what services do produce the kinds of effects which were anticipated. Further, one should be reminded that this report concerns itself only with program, not project, evaluation. Individual projects, to be reported in succeeding issues of the JOURNAL, may show achievement of specific goals not reflected in this report. In asking why the general hypothesis was usually rejected, one may hypothesize that gains will not show up in any consistent way until after several years of continuous treatment on the same set of pupils. A second hypothesis is that the types of treatments and/or their effectiveness are not as good as they should be. Third, one may speculate that our methods of evaluation are not valid in detecting changes that may have occurred. The fact that HSPT is a selected and therefore unmatchable group cannot be overemphasized. It mitigates against unbiased comparison and the use of experimental research designs.

Based on what we have learned from this investigation, where do we go from here? There are several impressions which may be viewed as guideposts for the future ESEA program.

1. Most ESEA resources will continue to be focused on primary target schools. HSPT pupils will continue to receive high service and even further attempts to increase treatment intensity will be made. Secondary target schools will continue to receive a minimum of ESEA service. Pupils in ST schools will serve as comparison groups for next year's evaluation.

2. It is possible that the ESEA program as a whole places too much stress on increased academic types of treatments. Perhaps, for example, greater stress needs to be placed on the inspirational approach rather than attacking the problem head-on through remediation. This would suggest greater stress on parent involvement and upon inservice teacher training which would be aimed at helping teachers bring out the best in the children they serve.

3. Since we are essentially in the dark as to what really works, we will attempt, early this fall, to identify those pupils in the sample who have shown the highest achievement gain. Through a case study approach we will work backwards to find out what the characteristics of these children are and what particular set of services, if any, were in common to this higher achieving group. Such a study may provide some clues as to program emphasis and direction this year.

4. Since the general hypothesis of more service yielding more achievement or better criterion measures was rejected at least for the present we are led increasingly to believe that if something is to be done of a significant nature to disadvantaged children it must be done at the earliest age possible. Thus, to whatever extent possible the highest degree of service and resources will be directed in the primary grades particularly with children served through the preschool program.

5. The correlates to pupil achievement need to be studied intensively to obtain clues as to how pupil achievement can be increased. Correlation analysis of the data obtained in the pupil sample will be made in an attempt to discover whether or not certain pupil characteristics are linked together in defining a low versus a high achieving pupil.